

VT House Committee on Health Care

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Health Care Reform Discussion

Handouts

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Green Mountain Care Board State of Vermont

GMCB's Vermont Health Dashboard of Key Indicators

Act 48 requires that the GMCB evaluate the performance of Vermont's health system to ensure that the quality of care increases while costs don't rise so steeply. In keeping with this requirement, we present "GMC's Vermont Health System Dashboard 1.0"

The 26 indicators presented here represent the best available data in four critical areas that together offer a broad view of the state of Vermont's health system as compared with the U.S. as a whole:

- Cost
- Access to Care
- Healthy Lives
- Prevention and Treatment

These measures are meant to be reviewed over time – and we may add new indicators or learn that some of the ones in version 1.0 weren't as helpful as hoped.

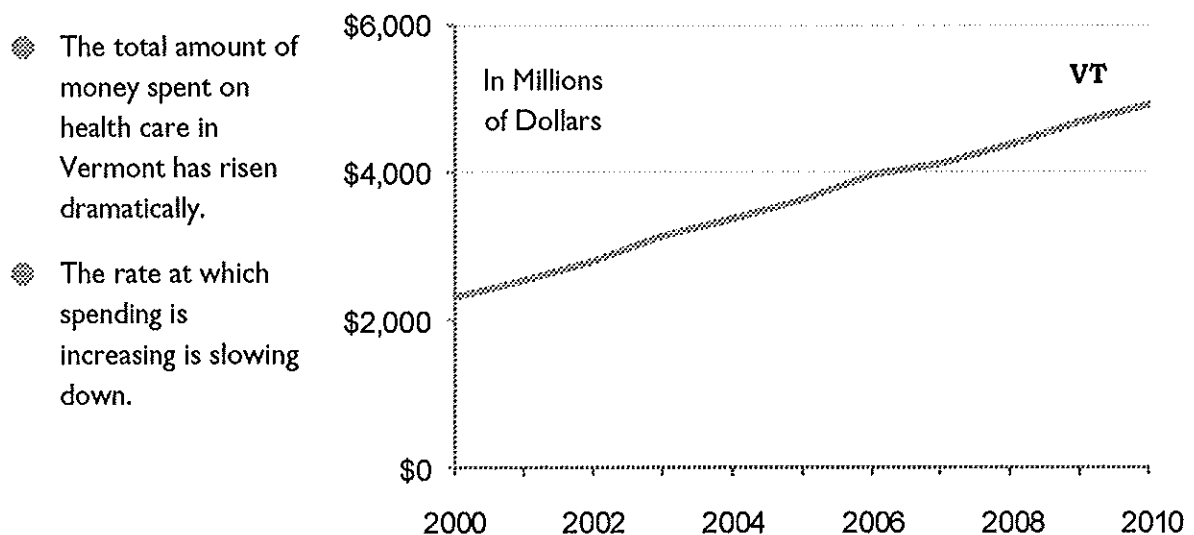
You can also access the Dashboard indicators as pdf on their category pages or visit our [Dashboard Text-Only](#) page.

As always, we encourage Vermonters to share their views through [Public Comments](#) and [Contact Us](#).

The Green Mountain Care Board wishes to acknowledge Cyrus Jordan, M.D. for compiling these indicators and analyzing the data, David Radley Ph.D., M.P.H. of the Commonwealth Fund and the Institute for Healthcare Improvement for the generous contribution of his team's research methodologies, Jessie Brosseau M.P.H. of the Vermont Department of Health for her analyses of the Behavioral Risk Factor Survey, Joyce Gallimore, M.P.H. for her research and management contributions and Public Engagement Intern Hillary Waters for writing, editing, design and production.

\$ Total Vermont Health Care Spending

The total amount that the state of Vermont and residents of Vermont spend on health care has risen from 2 billion dollars to almost 5 billion dollars since 2000. The growth rate (how much spending has grown between each year) has declined since the early 2000s but is still increasing at unsustainable rates.



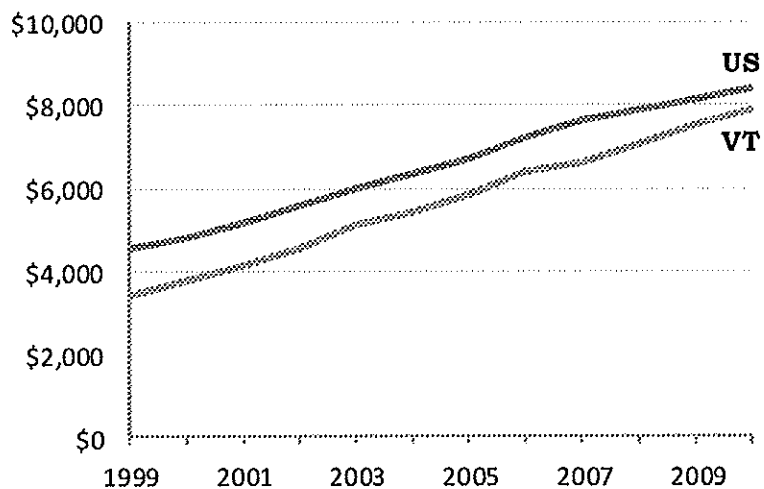
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont \$ (in millions)	2,297	2,538	2,804	3,151	3,382	3,634	3,983	4,109	4,380	4,702	4,928
Growth Rate % per year	11.1	10.5	10.5	12.4	7.3	7.5	9.6	3.2	6.6	7.3	4.8

Source: VT Health Care Expenditure Analysis 2010

\$ Per Person Health Care Spending

The amount of money spent on health care averaged out per person has more than doubled since 1999 in Vermont, from \$3,421 per person each year to \$7,876 per person each year. The gap between the over US per person spending and Vermont's per person spending has decreased.

- The amount of money spent on health care per person in Vermont has more than doubled.
- Our per-person spending is lower than the overall US per-person spending.



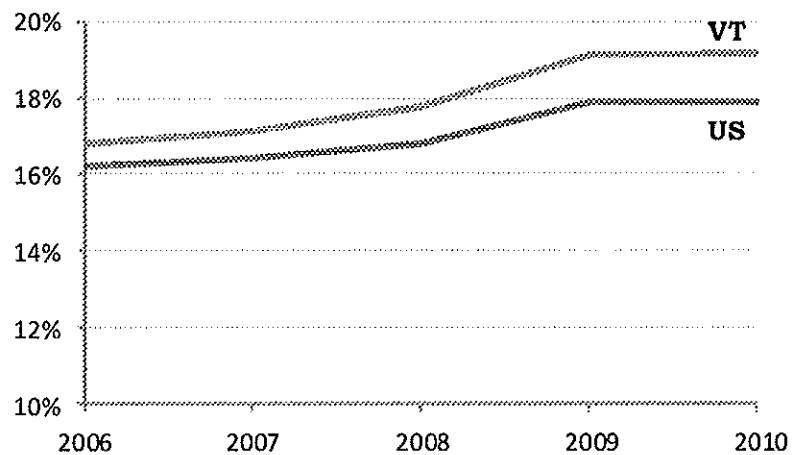
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont \$	3,421	3,774	4,416	4,555	5,090	5,442	5,832	6,383	6,614	7,051	7,562	7,876
US \$	4,550	4,810	5,150	5,564	5,973	6,327	6,701	7,251	7,628	7,911	8,149	8,402

Source: VT data from GMCB's Resident Analysis; US data from Center for Medicare and Medicaid Services (CMS)

Health Care Expenses^{as %} Of Gross Domestic Product

Health care expenses as a percent of gross domestic product measures the proportion of money spent on health care to money in the economy as a whole. This proportion has increased in both Vermont and the US as a whole between 2006 and 2010. In 2010, Vermont was doing better in this measure than the US as a whole.

- The amount of money spend on health care relative to the gross domestic product has increased in the past five years.
- Our rate is slightly higher than the US as a whole and is rising at about the same rate.



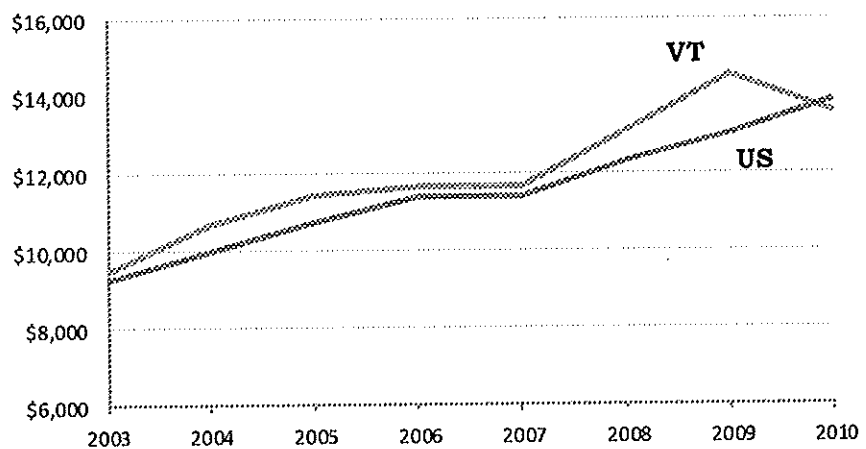
	2006	2007	2008	2009	2010
Vermont %	16.8	17.1	17.8	19.1	19.2
US %	16.2	16.4	16.8	17.9	17.9

Source: National Health Expenditures Accounts, U.S. Bureau of Economic Analysis

\$ Total Family Premiums

The cost per month an average family spends on their health insurance premium has risen since 2003 and is now at about \$13,588. 2010 was the first year we saw a decrease in the cost of insurance premiums for families. Vermonters spent more per family on insurance than the average US rate in every year except 2010.

- The total amount of money Vermont families spend on their health care premiums has risen since 2003 but decreased in 2010.
- Our premiums are higher than the overall US premium rates, except in 2010.



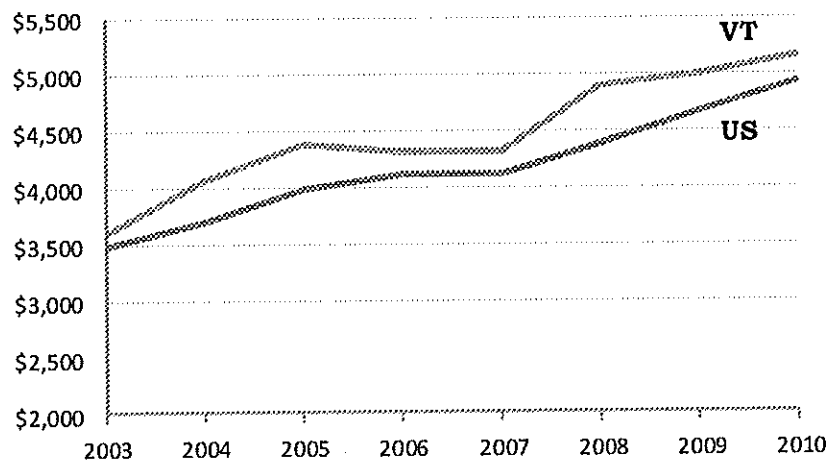
	2003	2004	2005	2006	2007	2008	2009	2010
Vermont \$ per year	9,483	10,690	11,420	11,631	—	13,091	14,550	13,580
US \$ per year	9,249	10,006	10,728	11,381	—	12,298	13,027	13,871

Source: AHRQ Medical Expenditure Panel Survey-Insurance Component; Private Sector Establishments (2007 not available)

\$ Total Single Premiums

The cost per month for an individual health insurance premium has risen since 2003 and is now at about \$5,170. Vermonters with individual health insurance plans spent more per person on insurance than in the US overall.

- The total amount of money Vermont single people spend on their health care premiums has risen dramatically.
- Our premiums are higher than the rest of the US and rising at about the same rate.



	2003	2004	2005	2006	2007	2008	2009	2010
Vermont \$ per year	3,596	4,074	4,392	4,322	—	4,900	5,001	5,170
US \$ per year	3,481	3,705	3,991	4,118	—	4,386	4,669	4,940

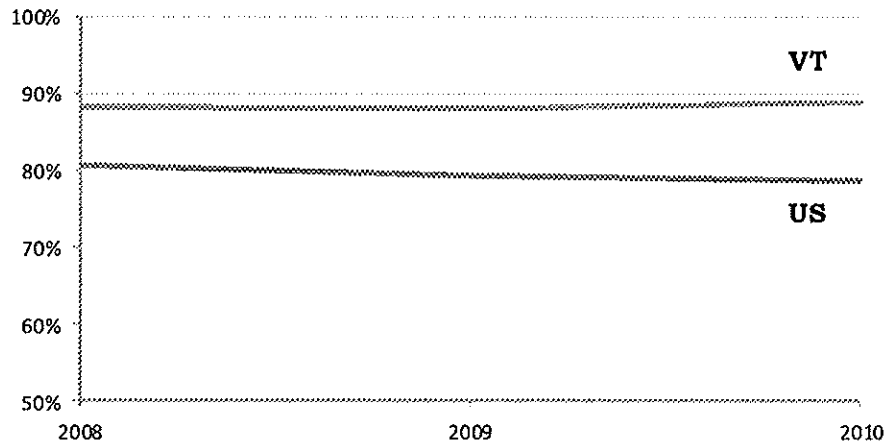
Source: AHRQ Medical Expenditure Panel Survey-Insurance Component; Private Sector Establishments (2007 not available)

% of Adults with Health Insurance

"Do you have health insurance?" Almost nine out of every ten adults in Vermont have some form of health insurance. This is higher than the rate in the US on average and placed Vermont in the best performing quarter of states in 2010.

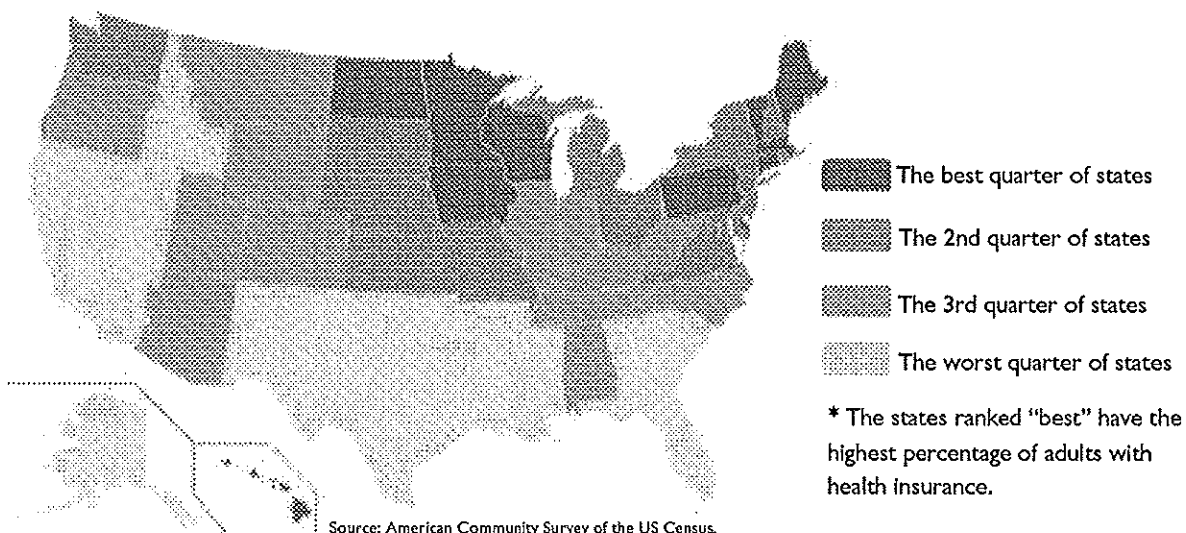
◆ The percentage of adults with health insurance in Vermont has remained constant since 2008.

◆ Our rate is higher than the average US rate. In contrast to Vermont, the overall national rate has declined.



	2008	2009	2010
Vermont %	88.3	88.3	88.3
US %	80.7	79.4	78.7

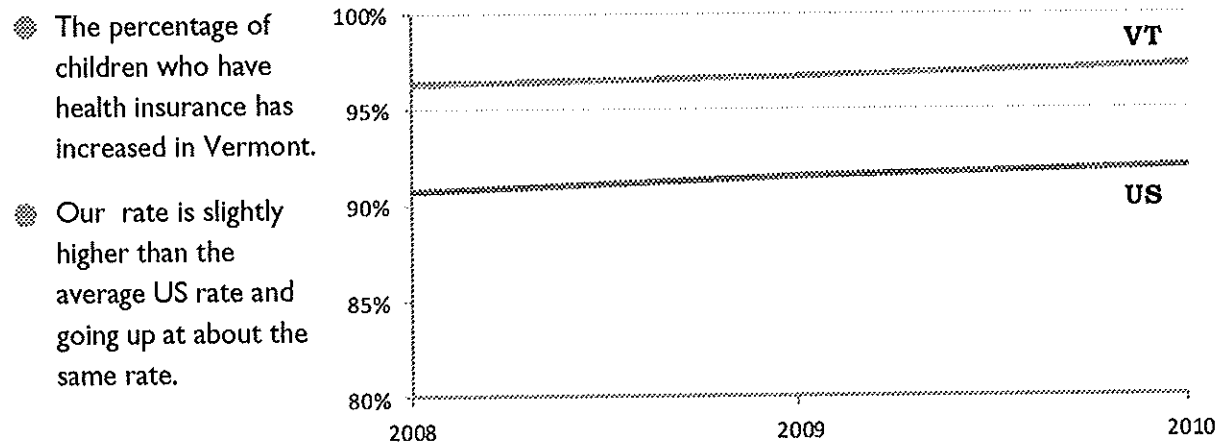
Source: American Community Survey of the US Census. One year estimate.



Source: American Community Survey of the US Census.

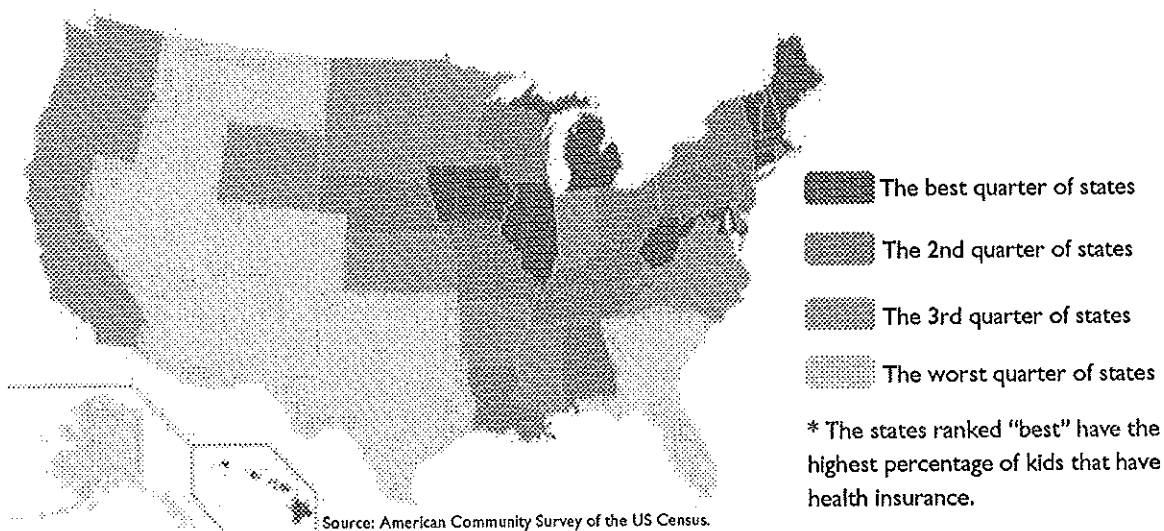
% of Kids with Health Insurance

In 2010, 97% of children under 18 had health insurance in Vermont, compared to an average US rate of 92%. This placed Vermont in the best quarter of states for children with health insurance.



	2008	2009	2010
Vermont %	96	97	97
US %	91	92	92

Source: American Community Survey of the US Census. One year estimate.

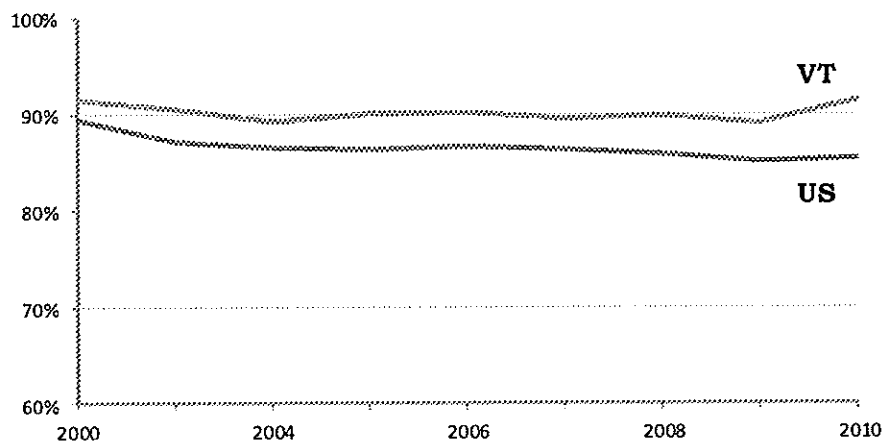


% of **Adults who can Afford to Visit a Doctor**

“Was there a time in the past 12 months when you needed to see a doctor but couldn’t because of the cost?” Although Vermont performs well on this measure and was in the top quarter of states in 2010, our results show that about 8% of Vermonters—that’s almost 1 out of every 10—were unable to go to the doctor when ill because of how much it costs.

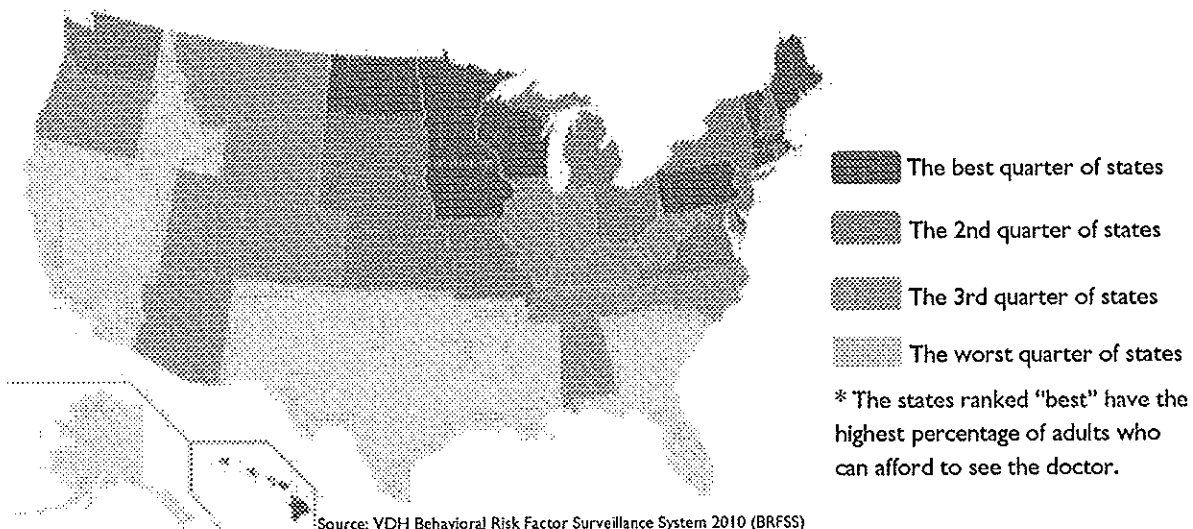
- The percentage of adults who can afford the doctor has remained stable in recent years.

- Our rate is slightly better than the rest of the US, where 15% of adults have a cost barrier to visiting a doctor.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont %	91.5	—	—	90.6	89.2	90.1	90.2	89.6	89.9	89.1	91.5
US %	89.5	—	—	87.2	86.6	86.5	86.7	86.5	85.9	85.2	85.4

Source: VDH Behavioral Risk Factor Surveillance System 2010 (BRFSS)



Source: VDH Behavioral Risk Factor Surveillance System 2010 (BRFSS)

% of At Risk 50+ Adults With Routine Checkups

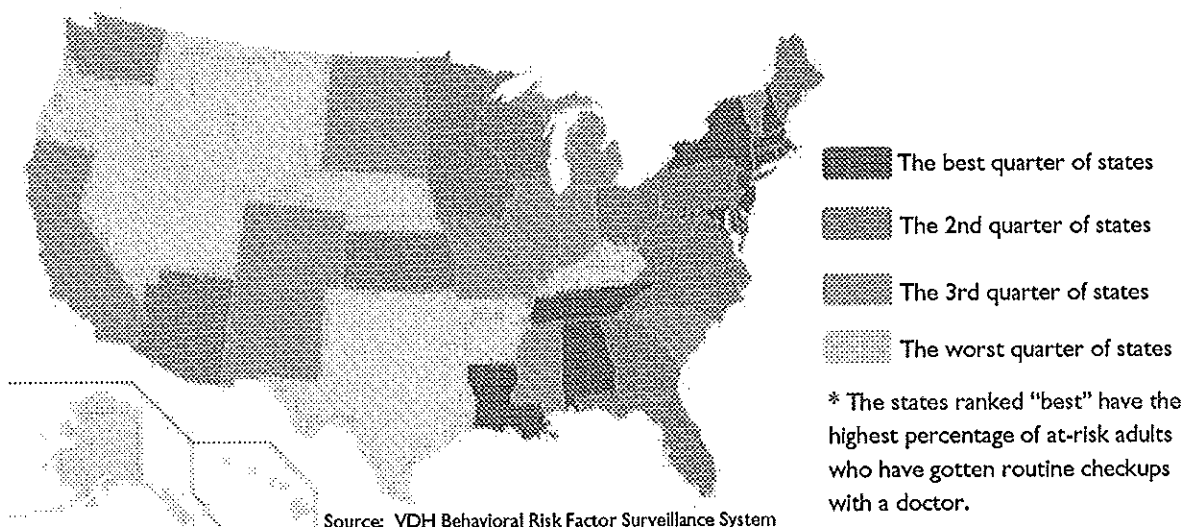
Vermonters who are older than 50, are in poor health or have a serious chronic medical condition are considered at-risk. They were asked, "About how long has it been since you last visited a doctor for a routine checkup?" Regular check-ups for people "at-risk" help them stay healthier and prevent the need for more expensive medical care later. This measure looks at the rate of at-risk adults who have visited a doctor in the past two years. In 2010, Vermont did not perform well in this measure and is in the 3rd quarter of states.

- The percentage of at-risk adults who have routine checkups has remained relatively the same over the past decade.
- Our rate is similar to the overall US rate.



	2005	2006	2007	2008	2009	2010
Vermont %	83.9	83.5	85.3	85.6	84.1	84.3
US %	84.3	84.2	84.9	86.2	85.5	84.9

Source: VDH Behavioral Risk Factor Surveillance System 2010 (BRFSS)

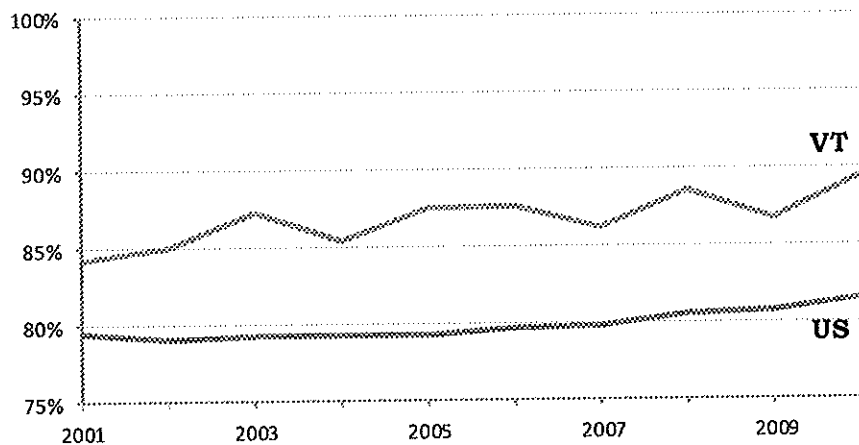


Source: VDH Behavioral Risk Factor Surveillance System

$\%$ of Adults with a Usual Source of Care

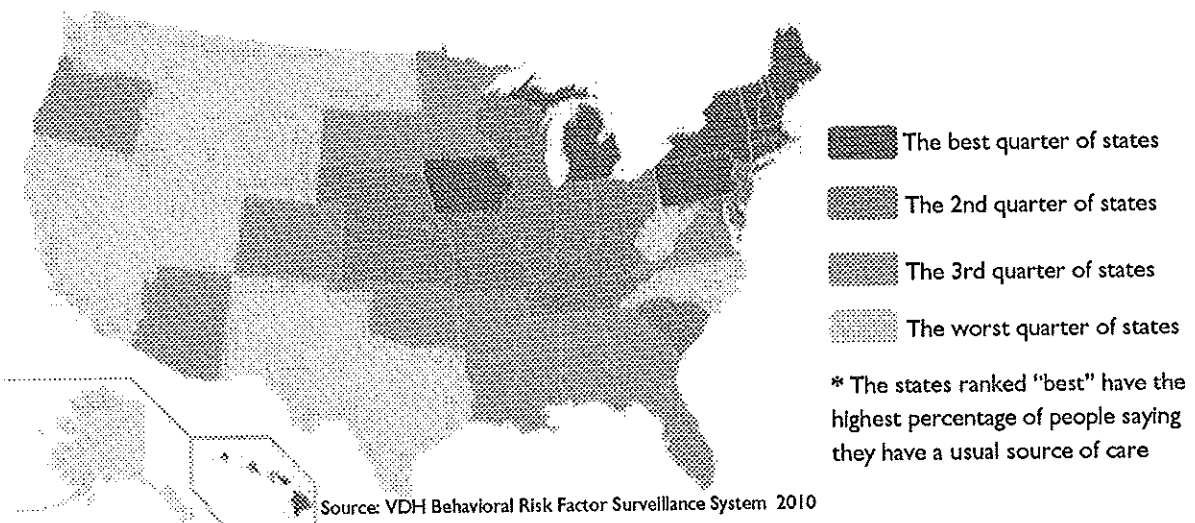
"Do you have one person you think of as your personal doctor or health care provider?" Having a medical home can help maintain and improve your health. A usual source of care provides continuity, consistency and safety. In 2010, almost nine out of every ten Vermonters answered "yes" to this question which was higher than the average US rate of eight out of ten. Since 2001 this rate has increased in Vermont and the US.

- The percentage of adults with a usual source of medical care has risen.
- Our rate is higher than the overall US and both are increasing.



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont %	84.2	85.1	87.3	85.5	87.5	87.6	86.2	88.6	86.7	89.5
US %	79.5	79.0	79.3	79.3	79.3	79.7	79.8	80.6	80.7	81.5

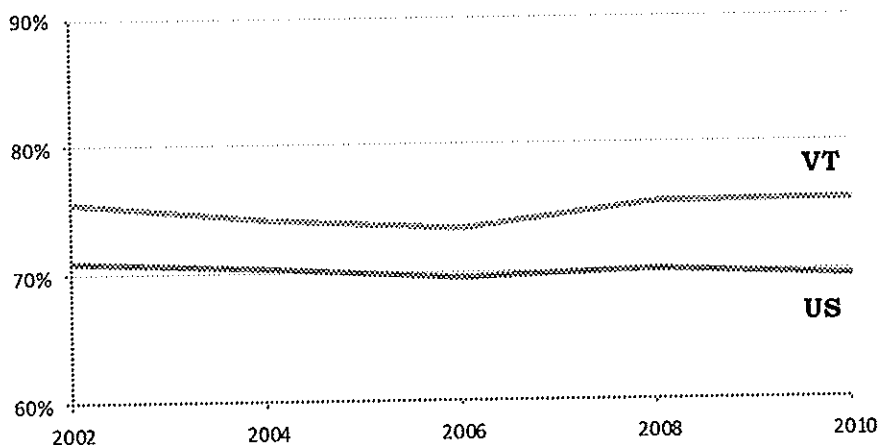
Source: VDH Behavioral Risk Factor Surveillance System 2010



% of Adults Who Saw a Dentist

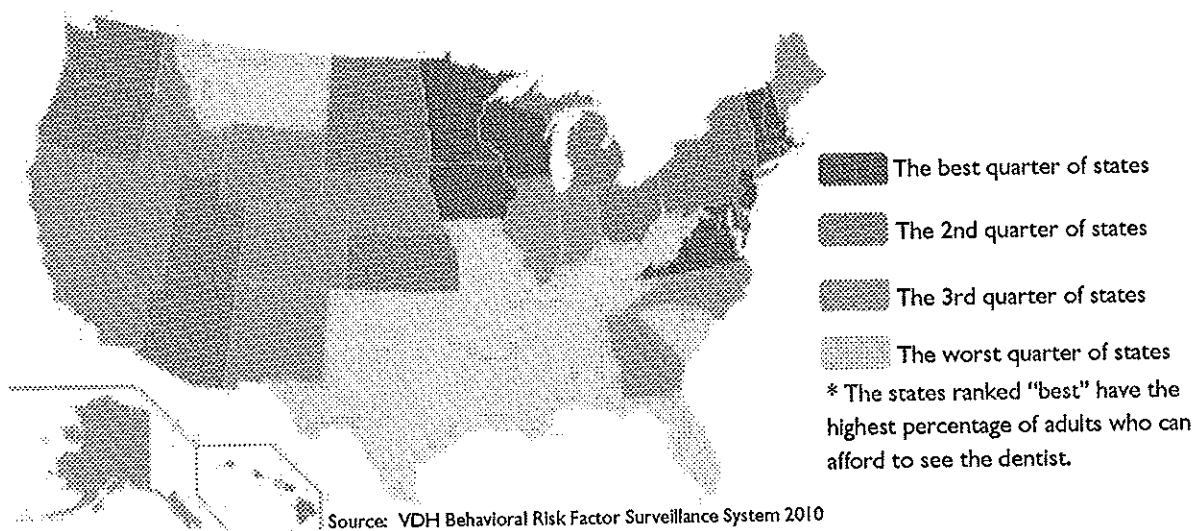
"How long has it been since you last visited a dentist or had your teeth cleaned by a dental hygienist?" Access to dental care is closely tied to income in the US. Over 40% of poor adults had at least one untreated decayed tooth compared to 16% of those with incomes higher than the poverty level. For every adult 19 years or older without medical insurance there are three without dental insurance. In 2010, Vermont ranked among the best states for people who go to the dentist.

- The percentage of adults who have seen a dentist in the past year is remaining stable.
- Our rate is higher than the overall US rate.



	2002	2004	2006	2008	2010
Vermont %	75.5	74.2	73.4	75.5	75.6
US %	71.0	70.4	69.6	70.2	69.7

Source: VDH Behavioral Risk Factor Surveillance System 2010

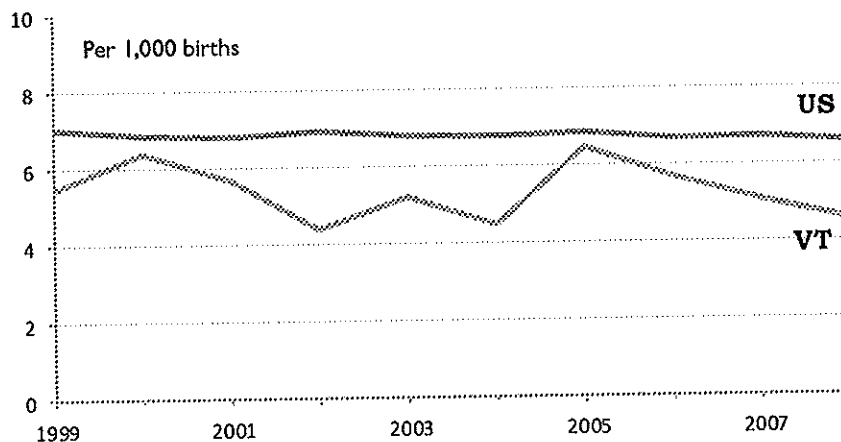


Infant Mortality

1,000 Births

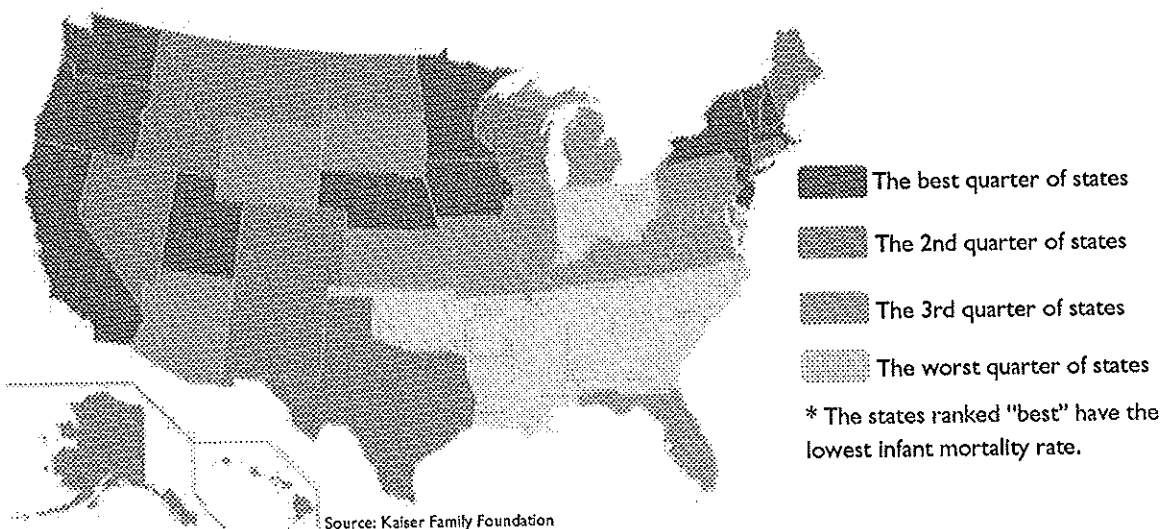
The infant mortality rate is the number of babies who die before their first birthday for every 1,000 babies born. In 2010, Vermont ranked among the best states for this measure, meaning we have a low number of infant deaths for every 1,000 born.

- Infant mortality in Vermont has remained constant. There seems to be a lot of change between years because the numbers are so small to begin with.
- Our rate is lower than the rest of the US.



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Vermont (per 1000)	5.5	6.4	5.7	4.4	5.2	4.5	6.5	5.7	5.1	4.6
US (per 1000)	7.0	6.9	6.8	7.0	6.8	6.8	6.9	6.7	6.8	6.6

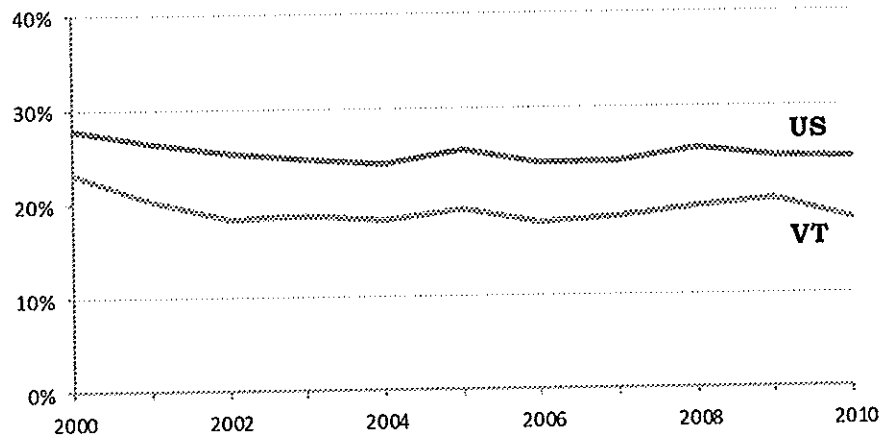
Source: National Vital Statistics System (NVSS)



$\%$ of Adults who Do Not Exercise

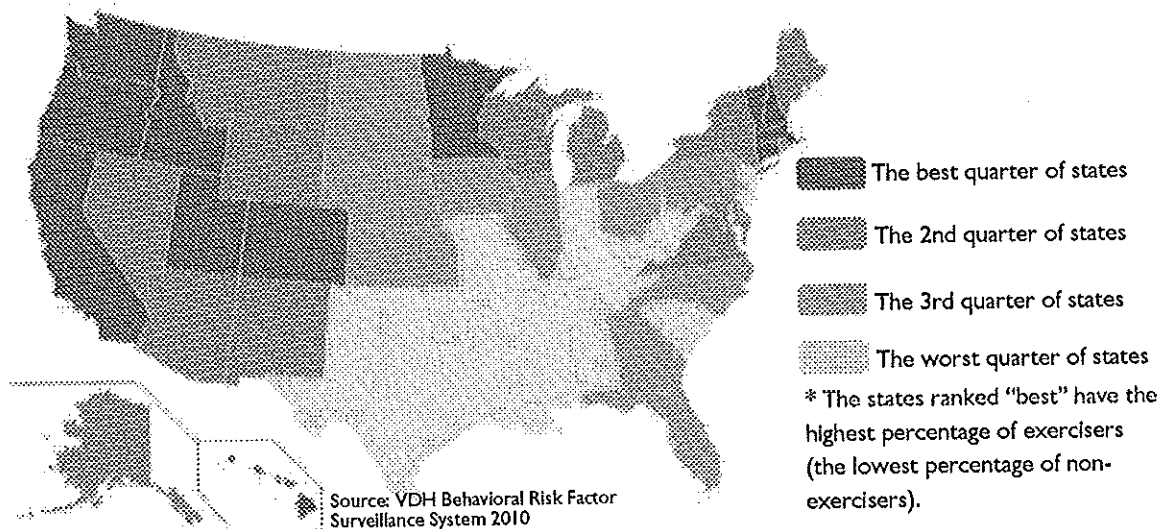
"Have you participated in physical activity or exercise outside of work in the past month?" In 2010, Vermont ranked among the best states in this measure, meaning a great percentage of Vermonters have exercised in the last month. Despite our aging population, the trend in Vermont has been an increase in the number of people exercising.

- The percentage of adults who do not exercise is decreasing slightly in Vermont.
- Our non-exercise rate is much lower than the US overall (a greater percentage of Vermonters exercise).



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont %	23.2	20.3	18.3	18.7	18.1	19.2	17.9	18.3	19.4	20.2	17.9
US %	27.8	26.4	25.3	24.6	24.0	25.5	24.2	24.2	25.6	24.6	24.4

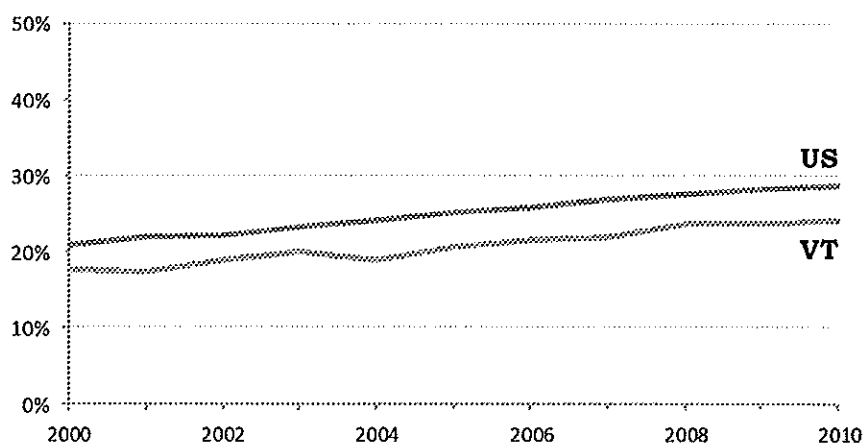
Source: VDH Behavioral Risk Factor Surveillance System 2010



% of Obese Adults

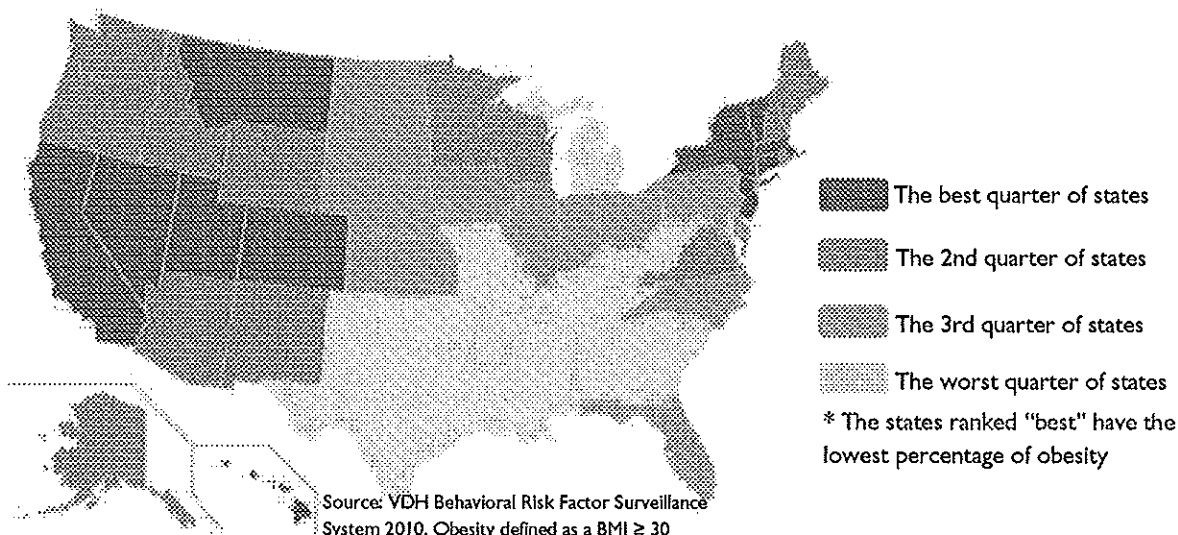
"How much do you weigh and how tall are you?" From this information, you can estimate your Body Mass Index (BMI) which indicates whether you are obese, overweight, a healthy weight or underweight. Obesity contributes to many costly medical conditions. In 2010, around one in every four Vermonters was obese, lower than the US on average. Vermont ranked among the best states in obesity rates, meaning we had some of the lowest numbers of obese residents.

- The percentage of Vermonters who are obese has been increasing steadily in recent years.
- Our rate is lower than the overall US rate and increasing at about the same rate.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont %	17.7	17.5	18.9	20.1	18.9	20.6	21.6	22.0	23.7	23.8	24.1
US %	20.8	22.0	22.3	23.3	24.2	25.2	25.8	27.0	27.5	28.2	28.7

Source: VDH Behavioral Risk Factor Surveillance System 2010. Obesity defined as a BMI ≥ 30

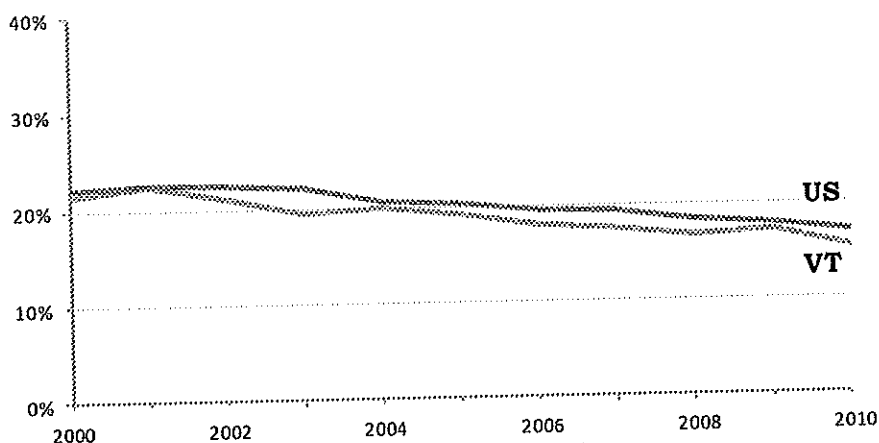


% of Adults who smoke

"Do you now smoke cigarettes every day, some days, or not at all?" Smoking causes many serious health problems, including increasing your risk of lung cancer, and results in large health care costs. In 2010, Vermont had a lower percentage of smokers (those who smoke every day or some days) than the United States on average and our percentages placed us in the second best quarter of states.

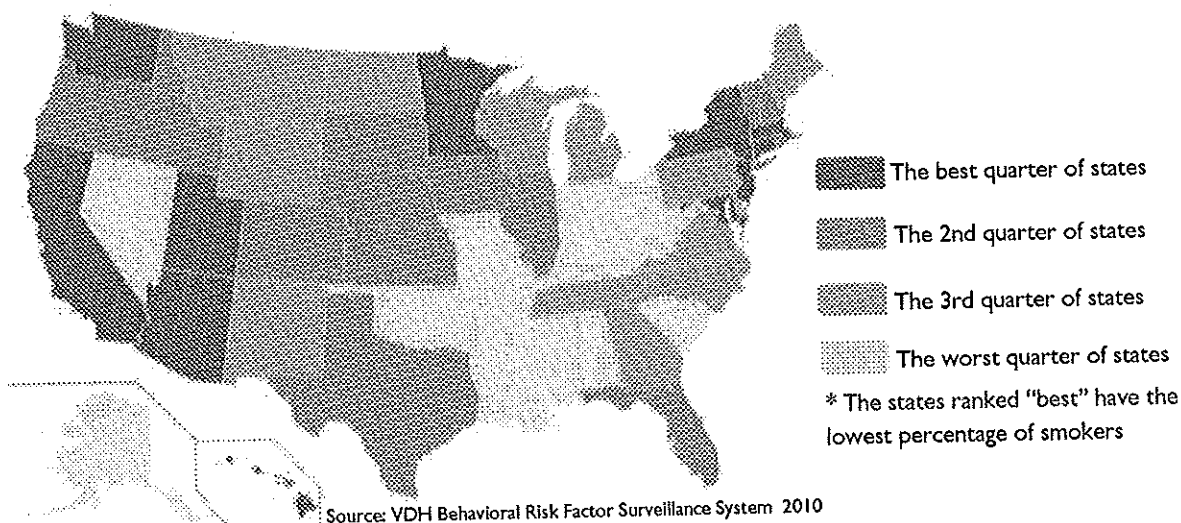
- The percentage of adults who smoke has declined over the past decade.

- Our rate consistently trends lower than the overall US rate.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont %	21.4	22.4	21.1	19.5	20.0	19.2	17.9	17.5	16.7	17.1	15.3
US %	22.2	22.7	22.5	22.1	20.7	20.4	19.5	19.3	18.4	17.8	16.9

Source: VDH Behavioral Risk Factor Surveillance System 2010

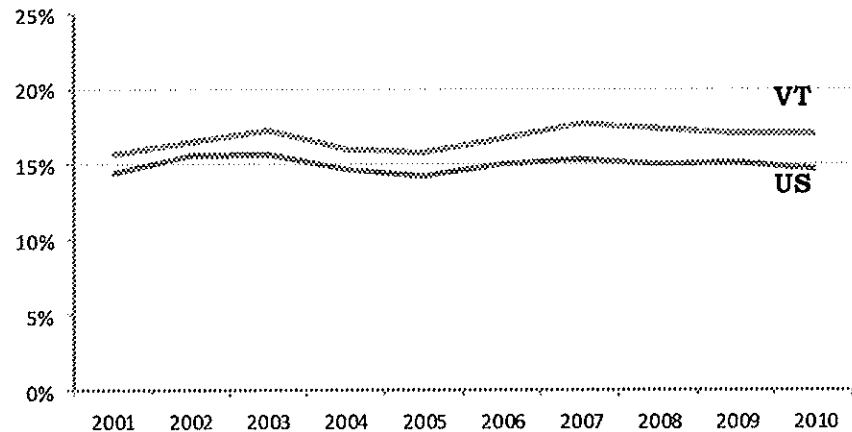


Source: VDH Behavioral Risk Factor Surveillance System 2010

% of Adults Binge Drinking

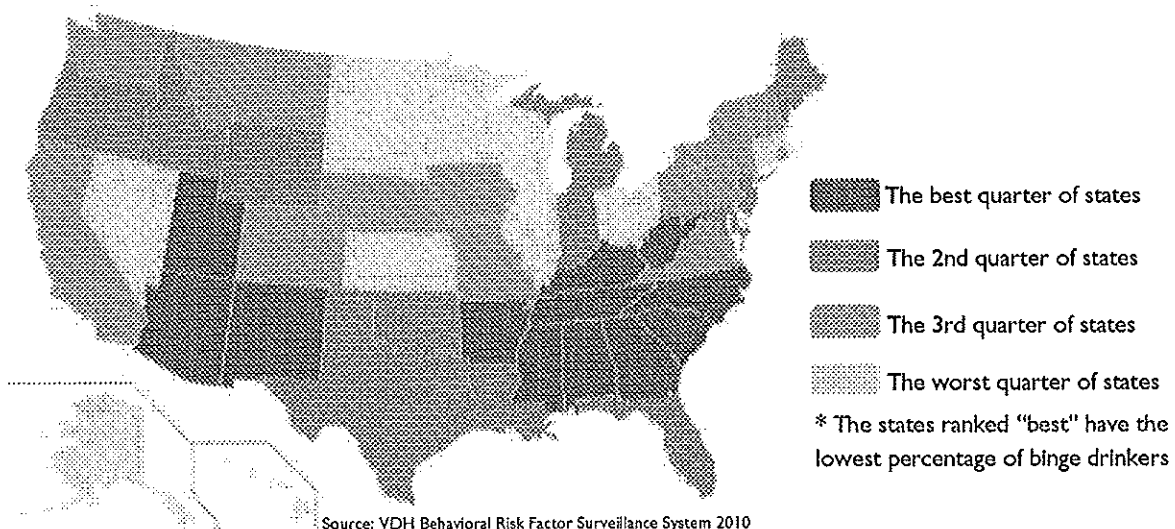
"How often do you drink 5 or more drinks at a time if you're a man or four or more drinks at a time if you're a woman?" Binge alcohol drinking is a major contributing factor to ER visits, hospital use and health care spending. In 2010, Vermonters ranked in the third quarter of states, meaning we have higher percentages of binge drinkers than most other states.

- The percentage of adults who binge drink in Vermont is remaining stable.
- Our binge drinking rate is consistently higher than the overall US rate.



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont %	15.7	16.5	17.3	16.1	15.8	16.7	17.8	17.4	17.1	17.1
US %	14.5	15.7	15.8	14.8	14.2	15.0	15.4	15.1	15.1	14.7

Source: VDH Behavioral Risk Factor Surveillance System 2010

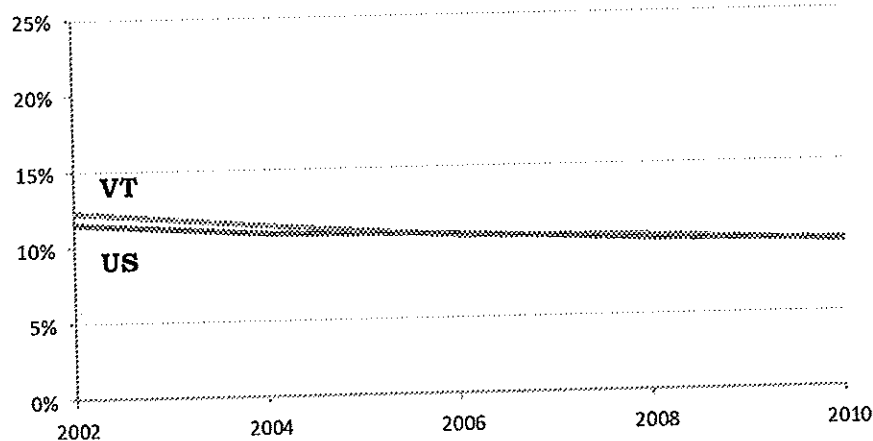


Source: VDH Behavioral Risk Factor Surveillance System 2010

$\%$ of Adults who have 6+ teeth removed

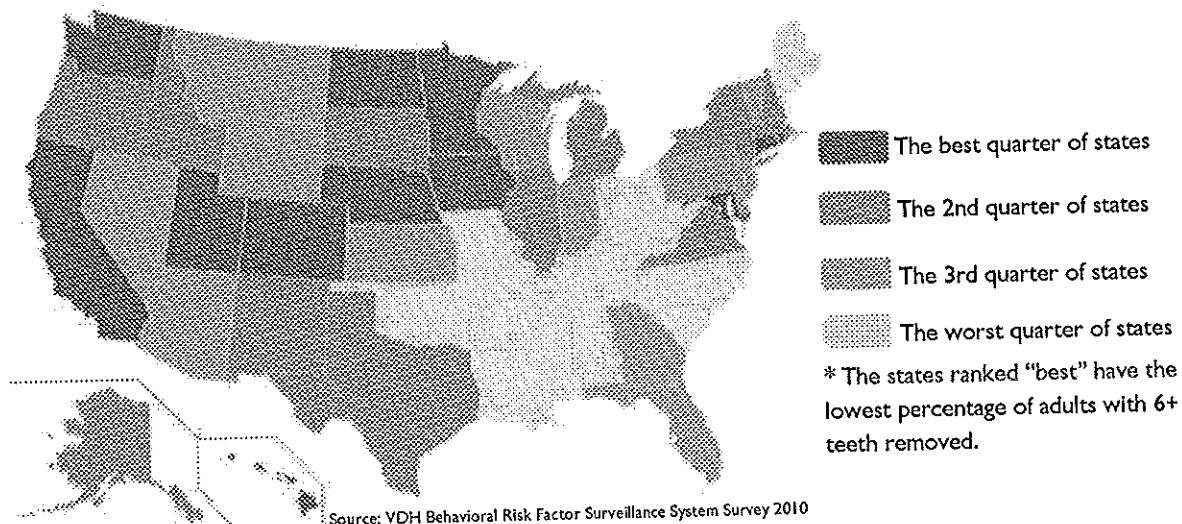
"How many of your permanent teeth have been removed because of tooth decay or gum disease?"
 Nearly one in three adults in the US has untreated tooth decay. In 2010, almost one in every ten Vermonters has had six or more teeth removed due to decay or infection, which placed Vermont among the second to worst quarter of states but very close to the average US rate.

- The percentage of adults who have had six or more teeth removed has decreased, meaning we are getting better.
- Our rate is close to the average US rate which is also decreasing.



	2002	2004	2006	2008	2010
Vermont %	12	11	10	10	10
US %	12	11	11	10	10

Source: VDH Behavioral Risk Factor Surveillance System Survey 2010

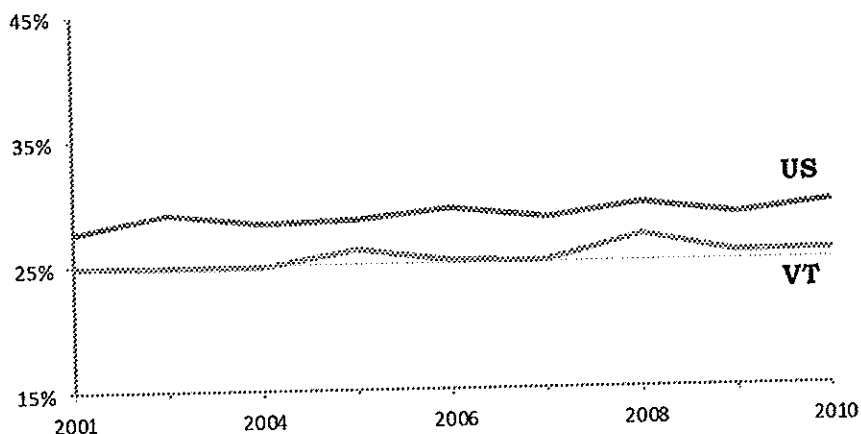


% of Adults reporting Poor Quality of Life

"What is your quality of life? Have you been limited in the past month because of physical, mental or emotional problems?" In 2010, about one in four Vermonters said their quality of life was poor because their activities were limited by their physical, mental or emotional state. This rate is lower (better) than the national rate.

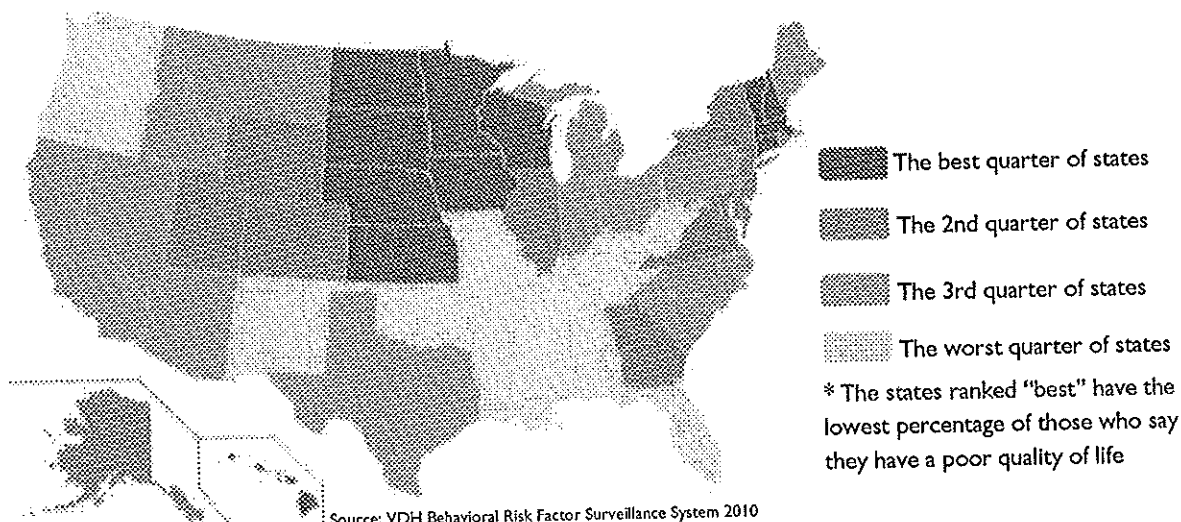
- The percentage of adults that self-report a poor quality of life due to health concerns has been stable since 2001.

- Vermont has fewer people reporting that their quality of life is poor than the US as a whole.



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont %	25.1	24.9	24.9	26.3	25.2	25.2	27.2	25.7	25.8	
US %	27.6	29.1	28.3	28.7	29.4	28.7	29.7	28.8	29.7	

Source: VDH Behavioral Risk Factor Surveillance System 2010



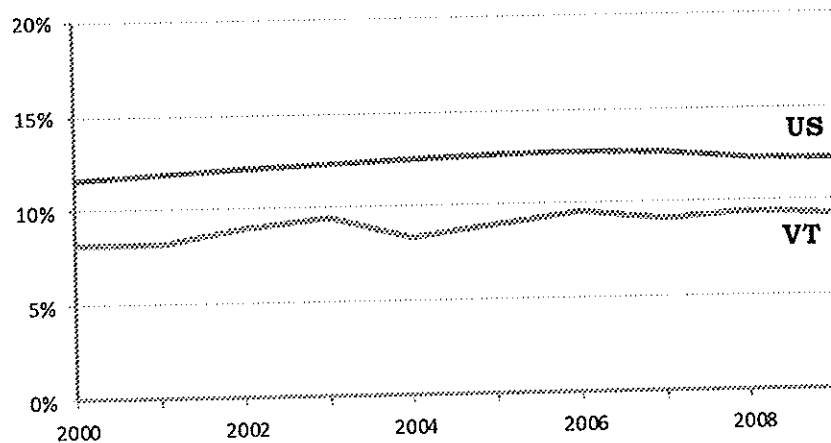
Source: VDH Behavioral Risk Factor Surveillance System 2010

G M C B D A S H B O A R D
www.gmcboard.vermont.gov/dashboardproject/

% of **Pre-term Births**

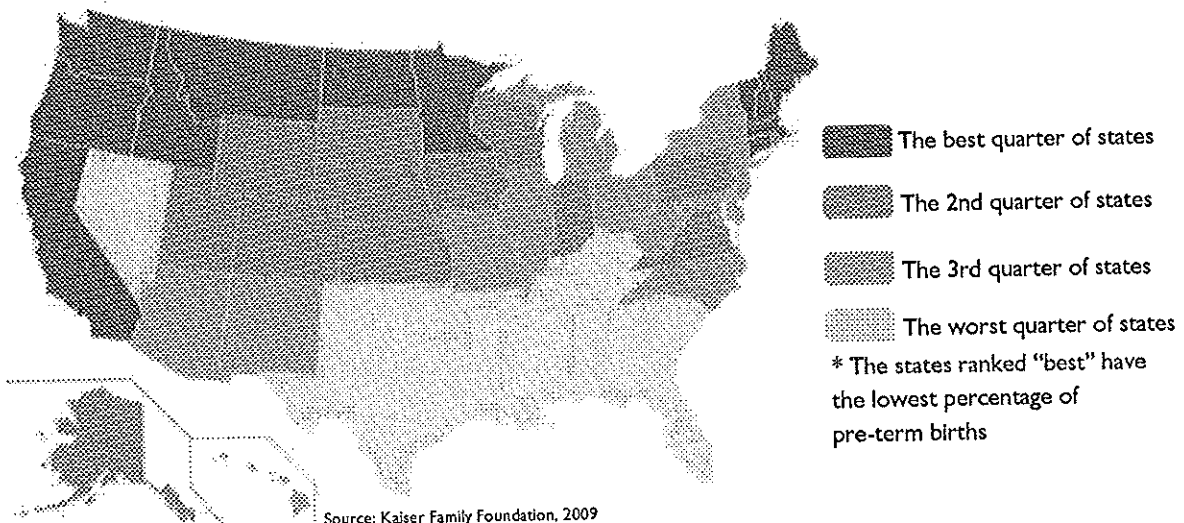
Pre-term births are babies that are born before 37 weeks of pregnancy. It is the most frequent cause of infant death and the leading cause of long-term neurological disabilities in children and costs the US health care system more than \$26 billion each year. In 2010, the percent of births that were pre-term in Vermont was the lowest in the nation, although the trend over the past decade is upwards.

- The percentage of premature births in Vermont has risen 1% since 2000.
- Our rate is lower than the rest of the US.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Vermont %	8.2	8.2	9.0	9.5	8.3	9.0	9.6	9.1	9.5	9.3
US %	11.6	11.9	12.1	12.3	12.5	12.7	12.8	12.7	12.3	12.2

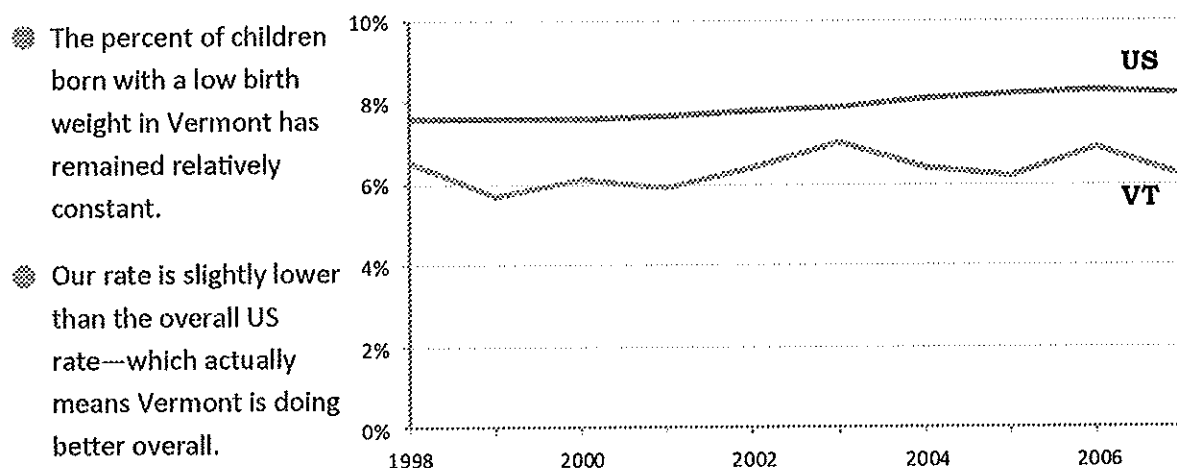
Source: Health Indicators Warehouse; CDC National Center for Health Statistics 2008



Source: Kaiser Family Foundation, 2009

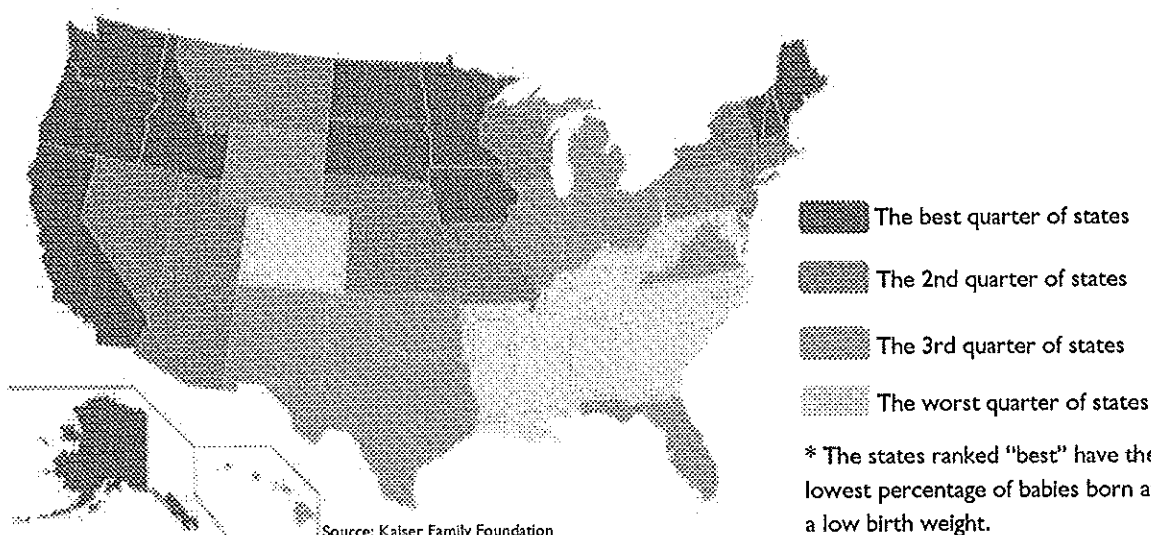
% of Babies Born at a Low Birth Weight

Infants under 5 pounds, 8 ounces have a greater risk of health problems, disabilities and even death than infants born at healthy weights. In 2010, Vermont ranked among the best states for babies born at a healthy weight, with only 6.7% of babies born at a low birth weight.



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Vermont %	6.5	5.7	6.1	5.9	6.4	7.0	6.4	6.2	6.9	6.2
US %	7.6	7.6	7.6	7.7	7.8	7.9	8.1	8.2	8.3	8.2

Source: National Vital Statistics System (NVSS)



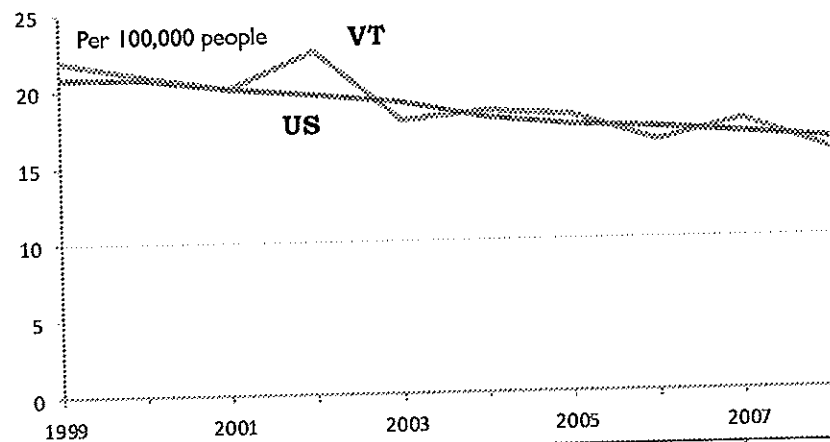
Source: Kaiser Family Foundation

Deaths from Colorectal Cancer

100,000 people

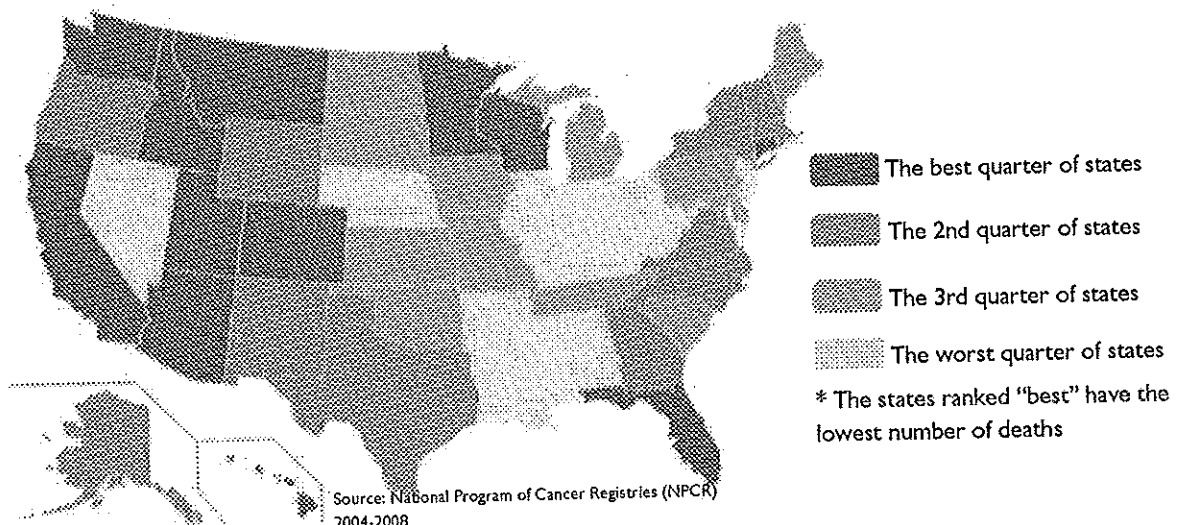
Colorectal cancer is the second leading cause of cancer death in Vermont, with about 62 men and 68 women dying from this cancer each year in the state. Because these numbers are low, we look at the number of deaths for every 100,000 people and group four years together when comparing rates between states. Both Vermont's rate and the average US rate have decreased in part due to earlier detection with technology like colonoscopies. Between 2004 and 2008, Vermont ranked in the best quarter of states.

- Colorectal cancer deaths in Vermont have decreased.
- Our colorectal cancer death rates have remained close to the overall US rate.



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Vermont (per 100,000)	22	21	20.1	22.5	17.9	18.5	18.1	16.4	17.7	15.7
US (per 100,000)	20.9	20.7	20.1	19.7	19.1	18	17.5	17.2	16.8	16.4

Source: Centers for Disease Control (CDC Wonder)

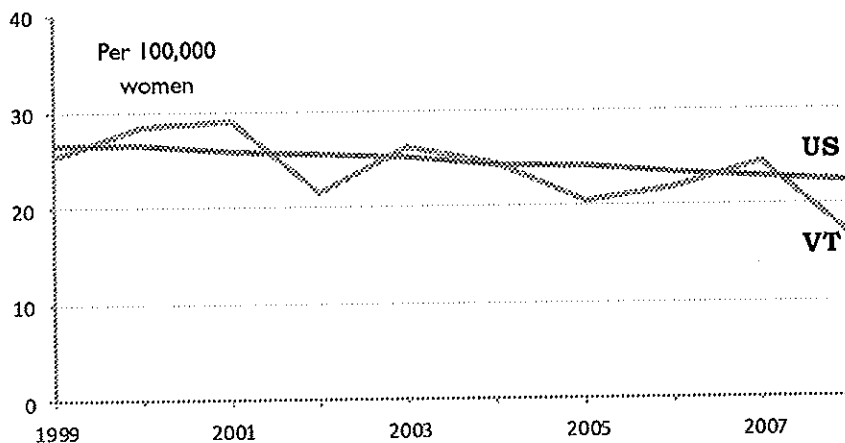


Breast Cancer Deaths / 100,000 women

Breast cancer is the most commonly diagnosed cancer in women. Each year, about 92 women die from breast cancer in Vermont. Because these numbers are low, we look at the number of deaths for every 100,000 women and group three years together when comparing rates between states.

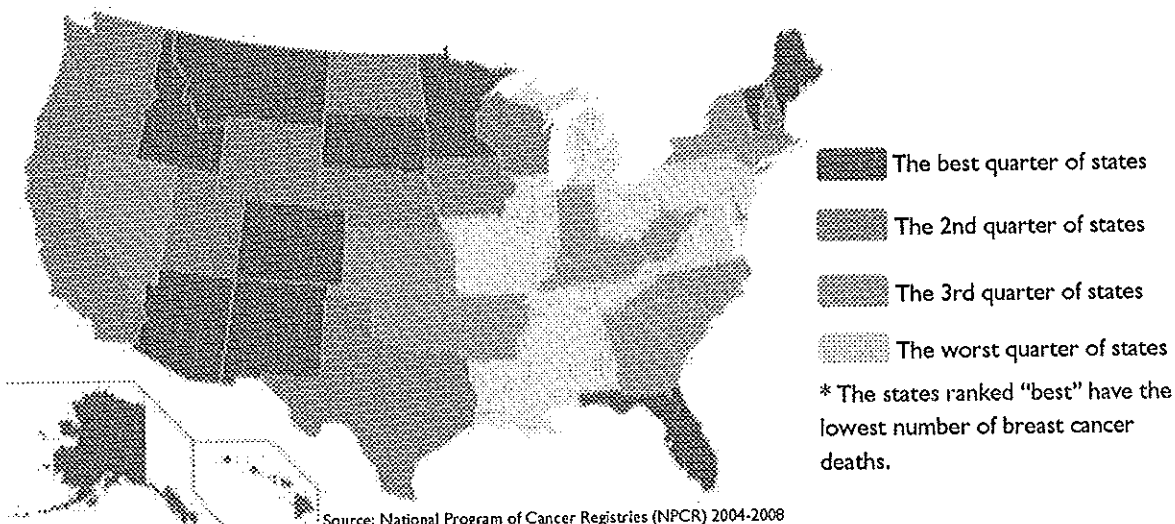
Between 2004 and 2008, Vermont has a low breast cancer death rate and ranked in the best quarter of states.

- Breast cancer deaths in Vermont have decreased.
- Due to small numbers our breast cancer death rates have fluctuated more than the overall US rates, which have also decreased.



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Vermont (per 100,000)	25.4	28.6	29.1	21.5	26.3	24.6	20.6	22	24.6	16.9
US (per 100,000)	26.6	26.6	26	25.6	25.2	24.4	24.1	23.5	22.9	22.5

Source: CDC Wonder 2008



% of Kids with Recommended Shots

In Vermont about seven out of ten children receive recommended vaccines, which help prevent serious disease. Vermont does not perform well compared to other states; it is in the 3rd quarter of states and lower than the national average.

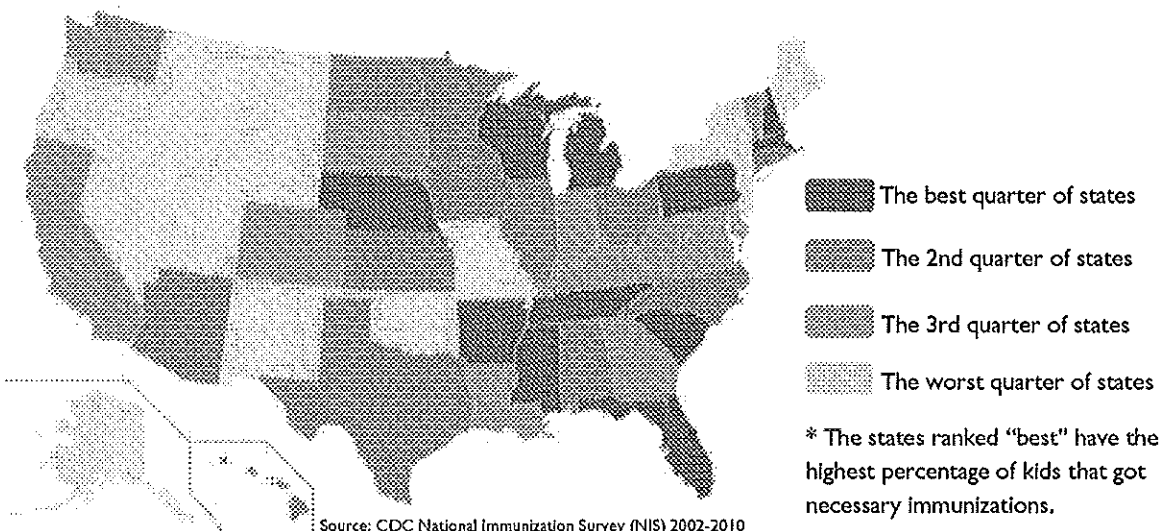
- The percentage of children who have the recommended shots has risen in Vermont. Big year-to-year changes are because of the small number of families surveyed.

- Our rate is lower than the overall US rate.



	2002	2003	2004	2005	2006	2007	2008	2009	2010
Vermont %	57.7	65.3	66.6	62.9	75.4	67.3	64.5	65.1	71.0
US %	65.5	72.5	76.0	76.1	76.9	77.4	76.1	69.9	74.9

Source: CDC National Immunization Survey (NIS) 2002-2010; Vaccine series measured is 4 3 1 3 3 1—DTaP, Polio, MMR, Hib, Hep B, Varicella

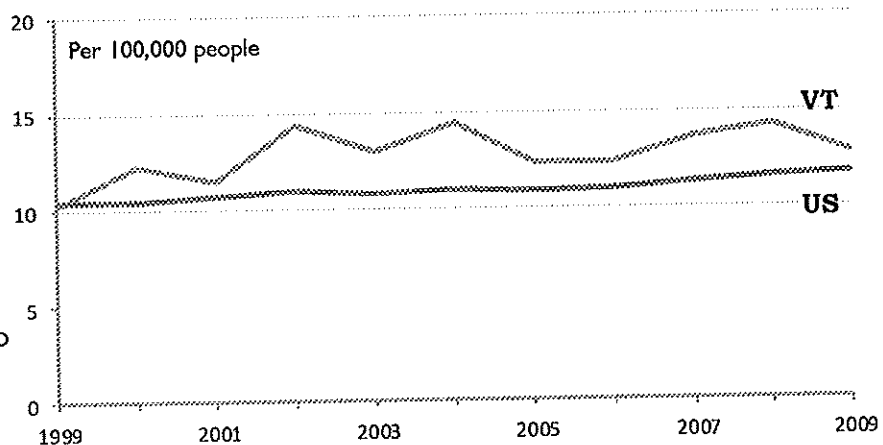


Source: CDC National Immunization Survey (NIS) 2002-2010

Suicide Deaths / 100,000 people

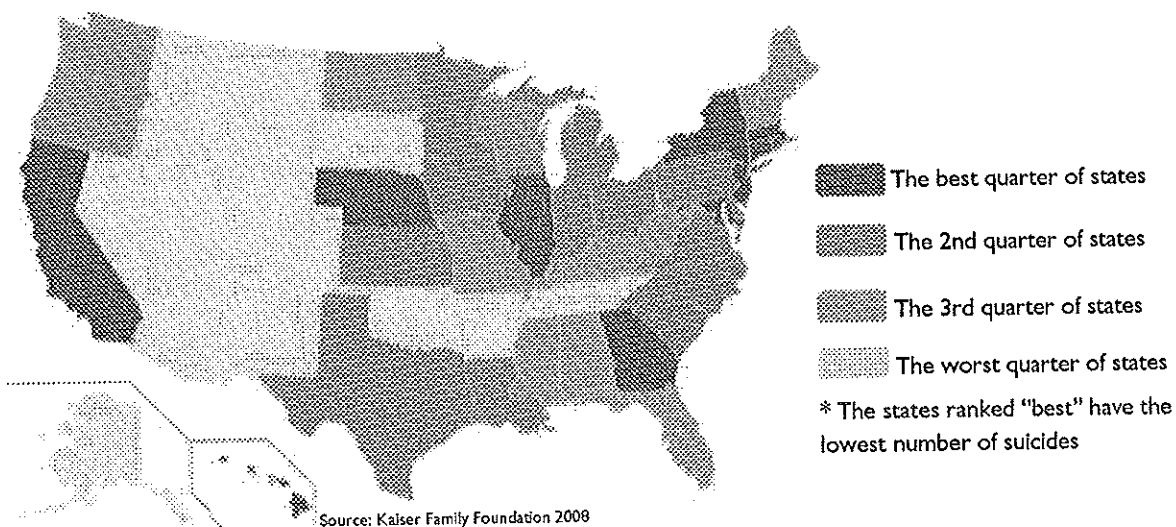
Suicide is very infrequent so we look at the number of deaths for every 100,000 people. In 2009 Vermont's suicide rate was higher than the average US rate, placing Vermont in the third quarter of states.

- Suicide deaths in Vermont have increased.
- Our suicide rates are higher than the US as a whole. The suicide rate in the US as a whole is also increasing.



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Vermont (per 100,000)	10.3	12.3	11.5	14.3	13.0	14.4	12.4	12.3	13.7	14.3	12.8
US (per 100,00)	10.5	10.4	10.7	11.0	10.8	11.0	10.9	11.0	11.3	11.6	11.8

Source: CDC Web-based Injury Statistics Query and Reporting System (WISQARS) 2009

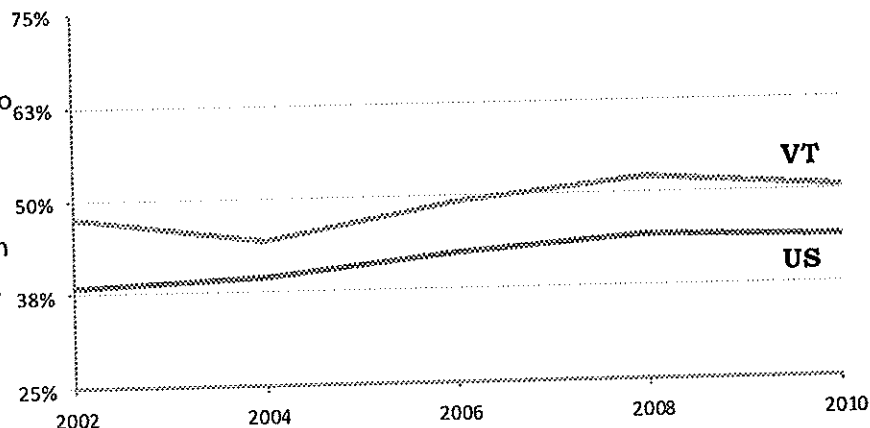


% of **Adults > 50 who have received Preventive Care & Screenings**

In 2010 about half of Vermonters 50 and over received standard screening and preventive care for common conditions. For women, this includes screenings for breast and cervical cancer. For both men and women this includes screening for colorectal cancer and receiving flu and pneumonia vaccines. In 2010, Vermont's percentage was higher than the national average and Vermont was in the best quarter of states for this measure.

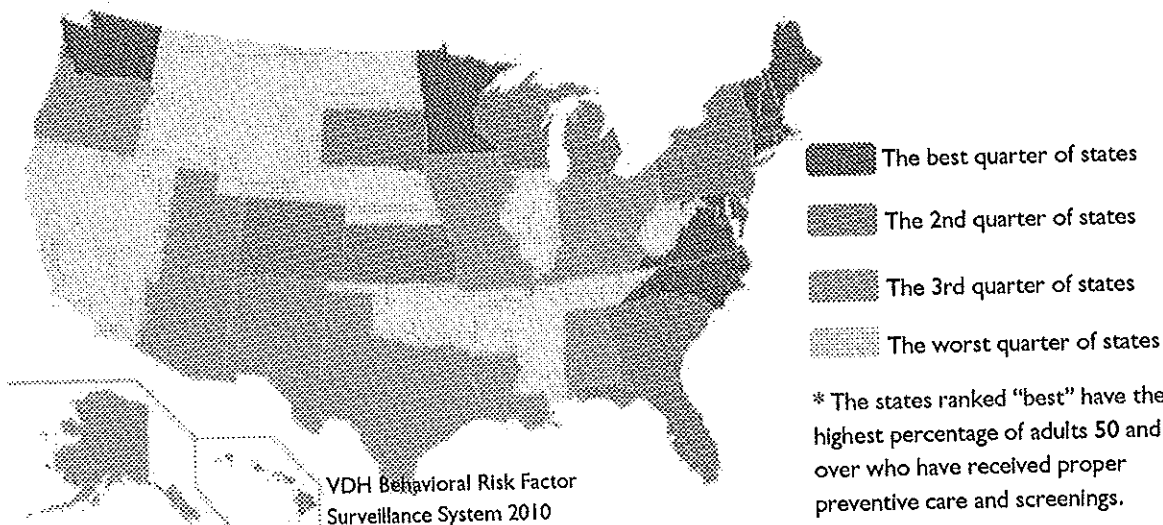
- In Vermont, the percentage of adults who have had access to preventive care has remained constant.

- Our rate is higher than the US on average but while the overall national rate has improved, Vermont's has not.



	2002	2004	2006	2008	2010
Vermont %	48	44	49	52	51
US %	38	40	42	45	44

VDH Behavioral Risk Factor Surveillance System 2010



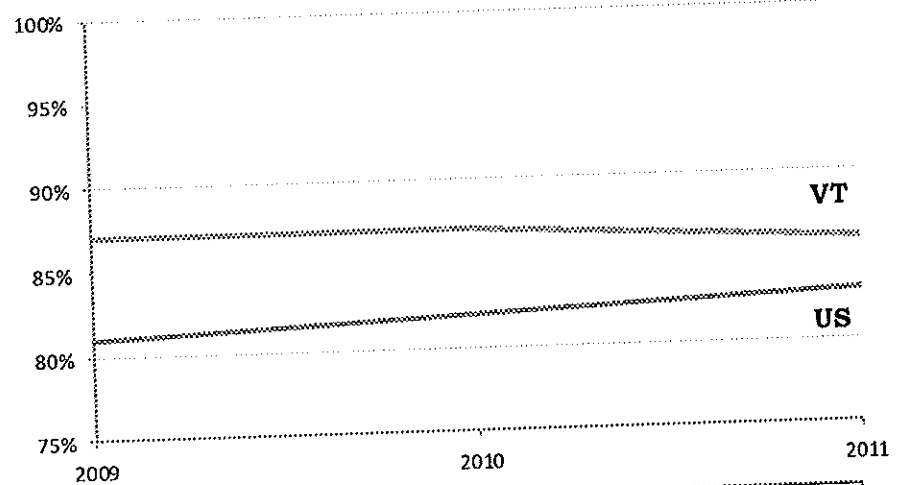
VDH Behavioral Risk Factor Surveillance System 2010

% of Hospitalized Patients Given Recovery Info

"If you were hospitalized, were you given information about what to expect when you are ready to leave the hospital?" Patients reported whether hospital staff had discussed the help they would need at home and whether they were given written information about symptoms or health problems to watch for during their recovery. In 2010, over 85% of patients hospitalized in Vermont have received this information, placing Vermont in the top quarter of states.

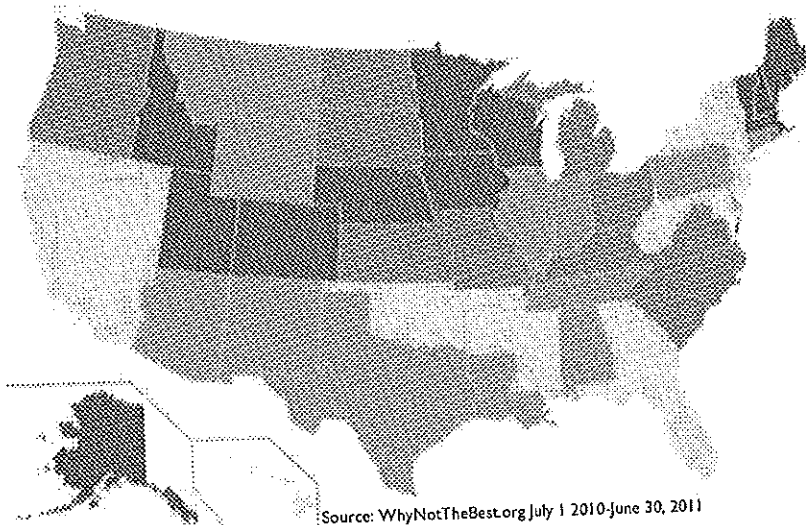
- The percentage of hospitalized patients given information about recovery when they leave the hospital has remained stable in Vermont.

- Our rate is higher than the overall US rate.



	2009	2010	2011
Vermont %	87	87	86
US %	81	82	83

Source: Hospital Compare July 1, 2008—June 30, 2011



- The best quarter of states
 - The 2nd quarter of states
 - The 3rd quarter of states
 - The worst quarter of states
- * The states ranked "best" have the highest percentage of hospitalized patients who have received recovery information

Source: WhyNotTheBest.org July 1 2010-June 30, 2011

The U.S Health Care Paradox: How Spending More is Getting Us Less

Elizabeth H. Bradley

Yale School of Public Health

Lauren A. Taylor

Harvard Divinity School

Yale Global Health Leadership Institute

The paradox

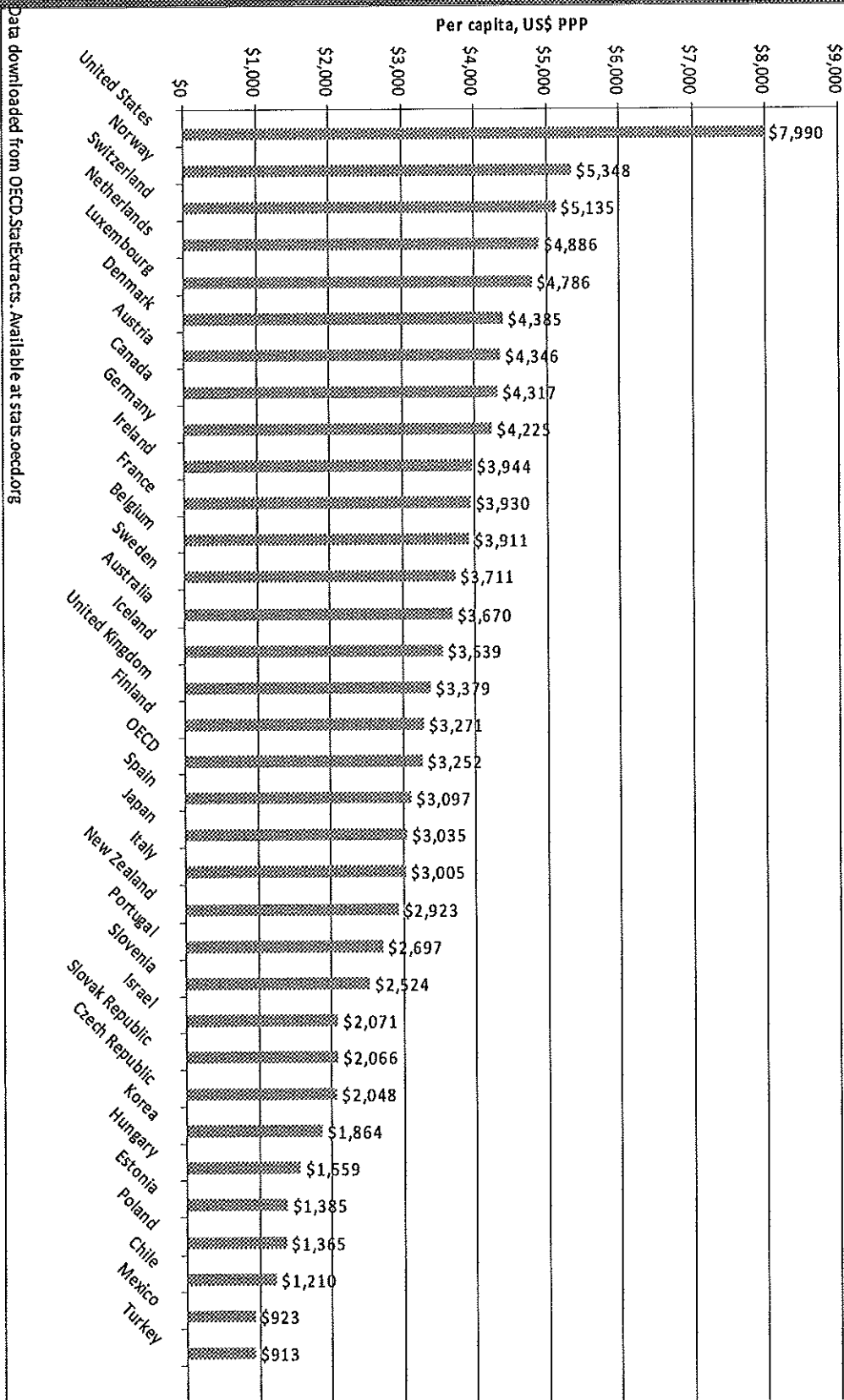
“Then there's the problem of rising cost. We spend one and a half times more per person on health care than any other country, but we aren't any healthier for it.”

PRESIDENT OBAMA, JOINT SESSION OF CONGRESS ON HEALTH CARE, (9/9/09)

Research objective

To examine the role of social service expenditures in explaining the US health care paradox

Spending on health care



Health outcomes

US Ranking out of 34 OECD countries

Maternal Mortality: 25th

Life expectancy: 26th

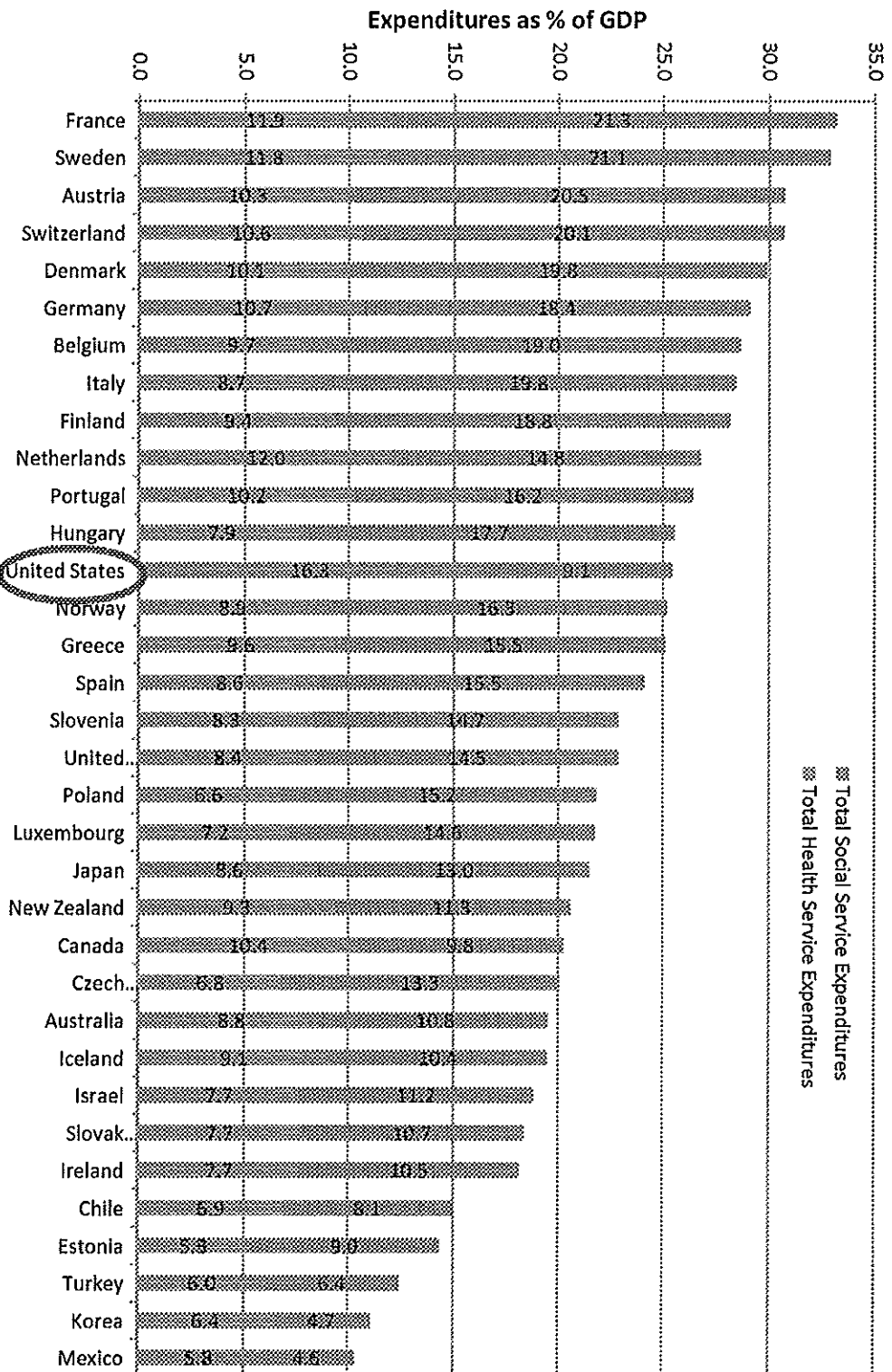
Low birth weight: 28th

Infant mortality: 31st

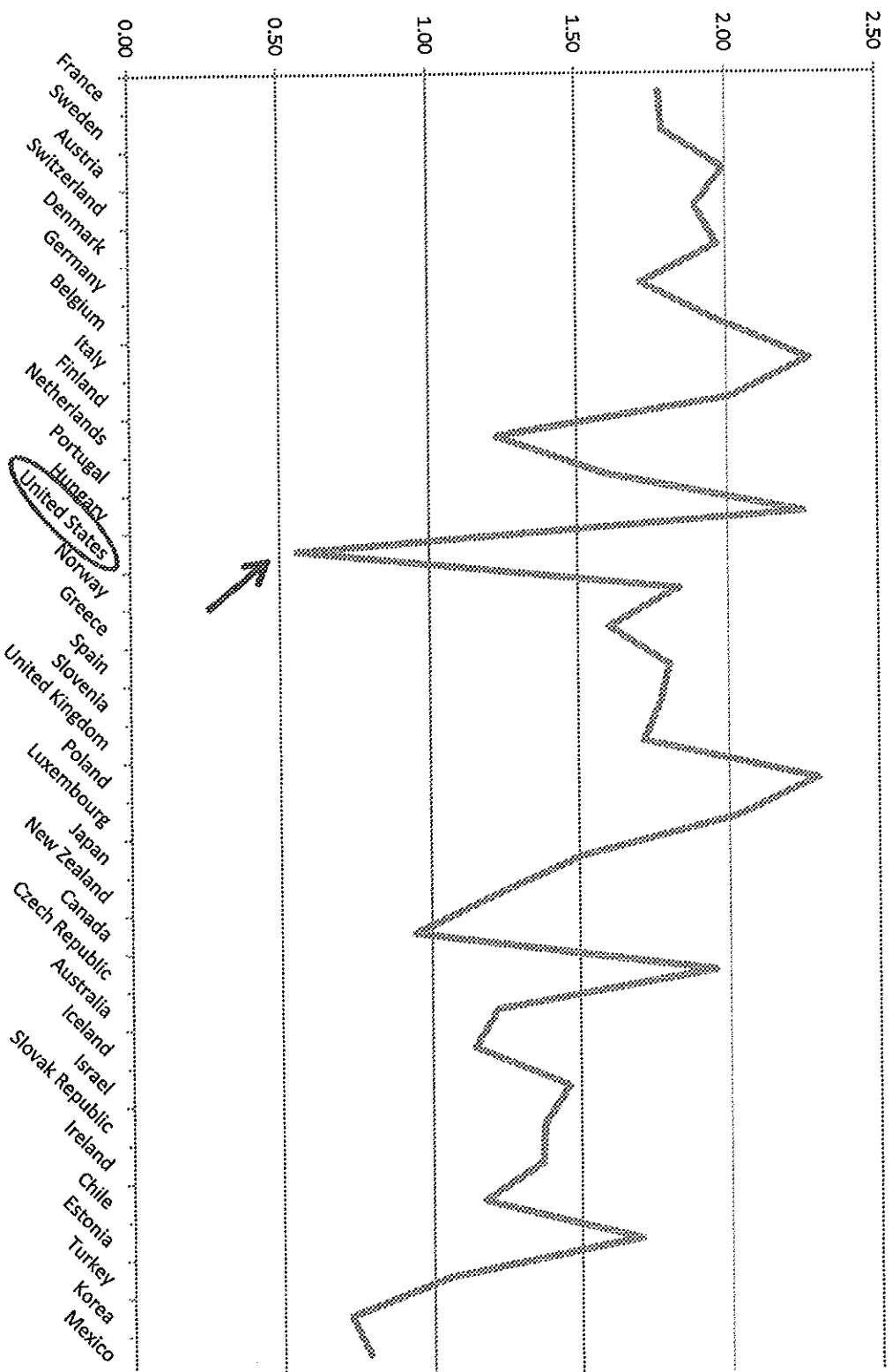
Source: OECD, *Health at a Glance 2009*. OECD Publishing

Total health care investment in US is less

In OECD, for every \$1 spent on health care, about \$2 is spent on social services
 In the US, for \$1 spent on health care, about 55 cents is spent on social services



Ratio of social to health spending is different



Findings

The ratio of social to health spending was significantly associated with better health outcomes:

- Less infant mortality, low birth weight, premature death; longer life expectancy
- Non-significant for maternal mortality

This remained true even when the US was excluded from the analysis

Recurrent themes

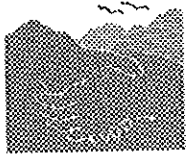
1. The health care sector is bearing the brunt of an inadequate social service sector.
2. Frontline personnel are stretched to respond to the concerns of service users with limited resources.
3. A more holistic approach was desired by both health care and social service providers.
4. Difficulties in establishing relationships between social services and health care have many roots.

Discussion

Policymakers, practitioners, and researchers might consider the role of social services in health reforms aiming to limit costs and improve health outcomes.

ACOs could reward health care providers for addressing the social, not just the medical, determinants of health.

Research on successful integrative models across social and health sectors is needed to guide such reforms.



VMS Education & Research Foundation
helping physicians help patients & communities

The Green Mountain Care Board And The Vermont Medical Society Education and Research Foundation

A Qualitative Research Project

Optimizing hospital based care in the Vermont region:

Better care, better health and lower costs

VMS Foundation White Paper

*This report is the second in a series of reports from the VMS Foundation providing the
views of Vermont physicians and other leaders
on topics critical to the future of our state's health care system*



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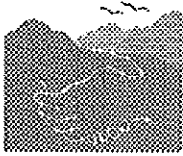
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VMS Education & Research Foundation

helping physicians help patients & communities

Preamble

This white paper is the result of a partnership between the Green Mountain Care Board (the Board) and the Vermont Medical Society's Education and Research Foundation (the Foundation), a public-benefit corporation whose purpose is to advance the public good by supporting educational and research activities in the field of health. The Foundation has been fortunate to receive core capacity funding for the past two years from The Physicians Foundation of Cambridge, Massachusetts.

In April of 2013 conversations began between members and staff of the Board and the Foundation exploring approaches to involve practicing physicians in a collaborative process among themselves and with the Board to rationalize care delivery, improve quality, reduce variation and shift the principal focus of reform to health improvement. The discussants shared the opinion that the sum of these issues is the epicenter of health system transformation in both Vermont and in the country; everything else should aim to support this work, or any effort to control costs and improve quality will be fleeting.

The Board having responsibility for a number of areas of health care regulation, strongly desired input from the practicing physician community on how they should change and reform regulatory processes to further the health care reform goals of the state:

- 1. Reduce health care costs and cost growth;**
- 2. Assure that all Vermonters have access to coverage for high-quality health care ;**
- 3. Support improvements in the health of Vermont's population; and**
- 4. Assure greater fairness and equity in how we pay for health care.**

The result of these conversations was a qualitative research effort managed by the Foundation and co-funded by both the Foundation and the Board. The focus of the research is to elicit physician opinion on three topics directly relevant to current Board activities:

- **Health resource allocation planning;**
- **Measurement of health care processes and outcomes; and**
- **Payment policy and payment reform**

The research effort has generated two white papers. Both white papers are based on structured interviews with practicing physicians. One group of physicians consists of the lead physicians for inpatient care at the majority of the region's hospitals. The second group of physicians includes mostly primary care physicians practicing in contiguous communities in the central eastern part of our state; two general surgeons, an obstetrician gynecologist, two pediatricians and two psychiatrists also participated in the section research effort..

Both sets of physicians were asked 10 similar questions. The answers provided by the inpatient physicians focused for the most part on inpatient care; the responses from the group of physicians in the second group referred to broader community wide needs. There was a great

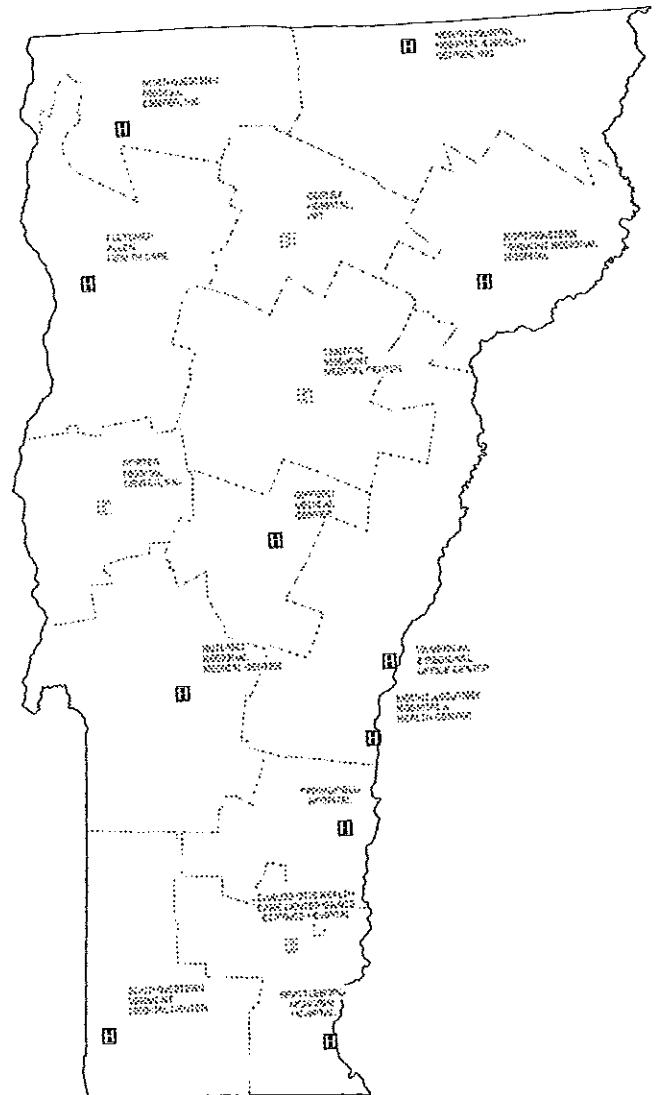
deal of similarity between the responses in both sets of interviews; and the reader of both white papers will find reference to many of the same issues across the two groups.

The document you are currently reading is the product of research focused on inpatient services, and represents the aggregation of structured interviews during the summer and fall of 2013 with 17 Vermont physicians who are responsible for the hospital care of Vermonters. Interviewees included the lead physician at eleven Vermont hospitals and the former lead physician for the Dartmouth Hitchcock hospitalist service. Physicians from all sizes of Vermont hospitals are included: critical access hospitals, community hospitals and Fletcher Allen Health Care in Burlington. The only hospitals not included in the interviews were Copley Hospital in Morrisville, Porter Hospital in Middlebury, Grace Cottage Hospital in Townsend and Central Vermont Medical Center in Berlin. Grace Cottage does not have a hospital medicine service; the other three hospitals did not participate due to time constraints on behalf of their physician staff.

Each physician was asked to respond to questions about what core inpatient clinical services should be available to Vermonters, and how health resources should be allocated across the region. Physicians were asked how to best measure the quality of inpatient care and how payment reform could best support good care. The interview also included questions about physician hopes and fears about the future of care in the state, specifically how to keep Vermont an attractive place for physicians to practice.

The Executive Summary is structured to highlight recommendations to the Board on issues of mutual interest. Recommendations were chosen in an attempt to balance the importance of the issue with the likelihood that the Board would be able to actualize the promise of their efforts.

Each recommendation is referenced to one or more of the supporting six sections that comprise the body of the document. Not every section lines up with a specific recommendation, though some do; rather the sections follow more closely the questions asked in each interview. The sections contain quoted material from the interviews. The reader is encouraged to read the sections to gain a fuller understanding of the opinions of the physician leaders who contributed to this effort.



The Green Mountain Care Board and the VMS Foundation are grateful for the contributions of the following professionals who contributed to this report:

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- Director, Hospitalist Services MAHHC and former Director of Hospitalist Services at Dartmouth Hitchcock Medical Center

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- Medical Director of the RPMC Hospitalist Program

William Tock MD, Southwestern Vermont Medical Center

- Hospitalist Dartmouth Hitchcock Putnam, SVMC



Executive Summary

This executive summary highlights recommendations for optimizing hospital care in Vermont from physician leaders responsible for the majority of the in-hospital care in the region. The recommendations are made in the spirit of helping the Board succeed in their enormously important work to design a Vermont health system for the 21st century. The summary is followed by six sections each of which voice physician opinion on topics of mutual importance to their patients and to the Board, both in its role as a regulatory body and as a catalyst for change. The physicians involved in the process all express interest in continuing to work with the Board in efforts to develop additional specificity to the recommendations and partner with the Board to actualize the promise of health care reform in the state.

1. Construct a health resource allocation plan for the state population as a whole

The chief determinant of allocating capacity and location of inpatient resources should be the overall medical needs of the state's population. The state should leave behind planning constructs that consider each community separately. The state should discourage each community health system going it alone and competing with each other in a costly arms race for patients needing profitable services. The Board has statutorily established responsibility for the Vermont Health Resource Allocation Plan. The Board should not allow resource distribution on a community by community basis, but insist that the Resource Allocation Plan makes sense from the perspective of the population as a whole. We know how many people live in Vermont. We know where they live. We know what the burden of illness the population bears. We can reliably predict what the medical needs of the population will be from year to year. We can reliably predict where the patients in need live. **Section 2 - Health resource allocation plan** offers the reader more detail about physician opinion on a rational health resource allocation plan for the state based on the state's population as the key planning metric.

2. Weight heavily patient centric considerations

The Health Resource Allocation Plan should guarantee equal access for all Vermonters; equal access not necessarily meaning equal distance to care. Equal access can be achieved in remote areas of the state through enhanced transport capability and enhanced telecommunication among care levels. Core clinical services should be readily available to all Vermonters regardless of where they live. In their considerations on allocating health resources across the state, the Board should weigh heavily issues of equity and patient centeredness. Consideration should be given to pushing services out into the more rural parts of the state rather than consolidating all resources in the more populous areas. Why shouldn't services travel to patients rather than patients traveling to services? **Section 2 - Health resource allocation plan** has additional detail on the importance of recognizing patients' perspectives on

care; as does **Section 3 – Accountability and measurement** which highlights the need for more patient satisfaction measurement to guide improvements in patient experience.

3. Plan three levels of hospital resources

The Board should establish three levels of inpatient care as building blocks for a statewide system of care in the Resource Allocation Plan:

- a. Community based care;
- b. Regional centers of excellence; and
- c. Tertiary care.

The three care levels should be defined in terms of the severity and complexity of patient illness that can be appropriately cared for at each level. Subsequent determinations on appropriate expenditures for physical plants and technology can be made based on the clinical needs of typical patients at each level of care. Patient need would drive allocation of technology and other capital expenses. The location of the three levels of care should be determined by the overall needs of the state's population and the overall financial solvency of a statewide system of community based care.

a. Community based care

The inpatient services included in this level of care are: adult general internal medicine; and general surgery. This inpatient capacity must be closely coupled with: a) an emergency department; b) an emergency medical service able to safely transport critically ill patients; and c) formal arrangements for constant immediate support from distant specialty services.

Adult Medicine

Patients appropriately cared for at this foundational level of care will have needs typical of the majority of the current medical inpatient population in the state. Typical patients would be those in need of palliative and end of life care, treatment for common acute community acquired conditions, treatment for patients with chronic conditions needing brief inpatient interventions, and subacute rehabilitative care.

General Surgery

Providing general surgery at all community hospitals is already a challenge due to national trend in less physicians being interested in general surgery as a career and the aging current workforce. Vermont has not been spared this hardship. Potential solutions include cross coverage across institutions, enhanced telecommunication ability to support around the clock general surgery consultation and close working relationships between/across community based level hospitals and strategically located regionalized centers of general surgery excellence.

Not all community based care hospitals necessarily need to have the capacity to support inpatient surgery; rather the surgical procedure and immediate post op care could be done at a strategically located regional center of general surgery, but patients not likely to need repeat surgery could be transferred back to their community based level of care for recovery. Outpatient general surgery could be more widely available and sited at smaller hospitals. It is unrealistic to expect that general surgeons will be present 24/7 at every hospital. Rather than having individual physicians on call, a statewide surgical system should be on call for emergencies with strategically located acute care surgical emergency capability.

b. Regional Centers of Excellence

Both the scope and the intensity of inpatient services will be expanded in the proposed regional centers of excellence in comparison to that present at the community based hospital care level. The location of these expanded resources should again be based on the needs and location of the entire state population. Market forces over the past few decades have already somewhat paired facility size and clinical capacity to the needs of the immediate population, but not necessarily with a result that benefits the entire population. Consideration should be given to locating these centers in community based care level facilities for economies of scale related to supporting a full time operating room to ensure efficient and timely access to general surgery and obstetrics. Many hospitals are currently supporting maternity care at cost, and thoughtful earnest discussions are needed towards developing a rational equitable and affordable system of obstetric care across the state.

Medical and surgical specialty care

These regional centers of excellence will have the workforce and resource capacity to care for patients too ill to be cared for at the community based care level. Centers of excellence will be developed for those medical and surgical conditions that require specialty expertise and expensive technology that cannot be justified either in terms of population need or cost at the community based level of care. Surgery examples include urology, orthopedics, obstetrics, gynecology and otolaryngology. Medical examples include cardiology, neurology and gastroenterology. Surgical centers of excellence will necessarily have fully functioning operating rooms; medical centers of excellence will have expanded ICU capacity and capabilities.

It is possible that all hospitals would offer both community based care and at least one center of excellence, e.g. obstetrics, orthopedics, cardiology, laboratory or radiology capacity. Decisions regarding the location of both community based care and centers of excellence would be principally driven by the overall medical needs of the state's population, but would also consider the financial viability of hospitals, their economic importance in their communities and maintaining rural practice as an appealing option to young physicians. Physicians do not like to be isolated. Clinical medicine by its nature involves uncertainty and unpredictability; peer support is essential if one is to remain in practice. If the state expects adequate physician presence in our rural settings, attention needs to be paid to ensuring that these rural physicians are supported locally and regionally by their peers and clinical teammates.

c. Tertiary Care

Fletcher Allen and Dartmouth Hitchcock should continue to serve the state's tertiary care needs. However, the two institutions need to work together more to maximize the safety, effectiveness, efficiency, timeliness, equity and patient-centeredness of tertiary care in the region.

Duplication of tertiary services

There is duplication of clinical services and their associated technology resources between the two institutions. Just as this document recommends a Vermont Health Resource Allocation Plan that is population based and demands coordination of resources within the state, it is also the recommendation of the contributing physicians that there be an identical purposeful plan for location and coordination of tertiary care across the region; and that our local tertiary care resources are coordinated with the national referral centers in southern New England and New York state.

That being said, both Fletcher Allen Health Care and Dartmouth Hitchcock Medical Center have another very important role in regards to the future of the delivery system in the state in that they are the two regional academic medical centers. As teaching institutions they host

Vermont's educational and training programs for the state's future health care providers. Their role in maintaining quality professional workforce needs to be recognized when developing a plan for coordination of tertiary care across the region. In order to maintain a curriculum meeting the requirements for students, residents, or fellows, there may need to be certain clinical services offered in both locations. Duplication of services may be needed for educational purposes.

The reader interested in learning more about physician opinion about constructing a health resource allocation plan around the concept of purposeful stratification and coordination of hospital services across the region will find more detail in **Section 2 - Health resource allocation plan**.

4. Care for patients at the right level of care through coordination of resources

One of the principal collective challenges to the current inpatient capacity in the region is the need for more tertiary care capacity. An everyday challenge across the region is freeing up beds at the two tertiary care centers for new critically ill patients. At any time there are typically 10 patients waiting for a bed at Dartmouth Hitchcock, but finding acute care beds in outlying hospitals that can safely accept stable patients who no longer need tertiary care is difficult. The gap between the severity and complexity of illness of inpatients at the tertiary care centers and what can be safely cared for at the outlying institutions has widened in the past decade due to a variety of factors including advances in technology at the tertiary center and changes in the professional workforce, practice patterns and institutional capacity at the outlying hospitals. **Section 2 - Health resource allocation plan** offers the reader more information about this key recommendation.

5. View the direct care workforce as the key resource

The professional healthcare workforce that directly interacts with patients is the paramount resource in health care, and the Vermont Health Resource Allocation Plan should recognize the immediate and future challenges to ensuring an adequate healthcare workforce in Vermont.

Teamwork

The workforce consists of discretely identified professions such as nursing, physicians, mid-level practitioners and allied health professionals. However, the provision of good care is the result of teamwork and coordinated supportive interaction among all the professionals. Policy makers should recognize the interdependence of professionals in their consideration of workforce needs. Patient care is enormously more complex than it was just a single decade ago; no individual practitioner can provide good care alone. Advances in medical science, particularly technologic advances, have resulted in many new diagnostic and treatment modalities. Patients are able to live longer, but the burden of caring for them safely and to meet their individual needs has increased exponentially. The interdependence of all the members of the professional team was highlighted by recent events at one Vermont hospital where the dominant influence on patient care and physician practice in years was a significant reduction in the nursing workforce.

The physician centric comments in this document should not be interpreted as diminishing the importance of teamwork and the interdependence across all the professions; the importance of teamwork was mentioned just as frequently as specific physician workforce issues. All of the interviewees were physicians. Issues regarding the physician workforce came up in every interview and in response to almost every question. **Section 6 - Retention and recruitment of physicians** offers more information about retention and recruitment of physicians.

6. Push hard for a seamless integrated information technology

The most common initial response from interviewees to any question about measurement, reporting or what information would be most useful was the need for a seamless integrated clinical information system both within their own institution and across institutions in the region.

The Board has regulatory authority over the Vermont Health Information Technology Plan. The consensus of those physicians interviewed is that insisting on improvements in information technology particularly the interoperability of systems should be one of the Board's highest priorities in their efforts to redesign the current system of care. **Section 3 – Accountability and measurement** highlights the pervasive need to address the dysfunction of the current health information technology system in the state.

7. Encourage more meaningful and efficient accountability measurement

Beyond the disappointment and frustration with the current state of health information technology, the overall sense about measurement, reporting and available health care information among the region's hospitalists is that there is little information available to them that they feel is meaningful or useful. There is significant interest among hospitalists to have access to reports and measurement that is clinically meaningful and could facilitate benchmarking and improvement.

That being said, no interviewees want more measurement just for measurement sake. Rather their desire is for meaningful, actionable measurement that aligns with other ongoing federal and state level measurement programs and metrics.

In contrast to their colleagues working in the primary care outpatient setting, the inpatient physicians do not feel overburdened by documentation and reporting demands. The majority of the documentation and reporting burden in the inpatient setting is born by the hospital's administrative and nursing staff. Several mentioned the irony in the contrast between the inpatient and outpatient settings; outpatient practitioners with little administrative resources are being asked to document excessively in order to support a robust set of measures, whereas the hospitalists with ready access to administrative support and responsible for the highest cost patients are wanting meaningful actionable information and measurement.

Suggestions for Information that would be more meaningful

The most frequent responses from physicians about how measurement could be made more valuable or the process could be more efficient are grouped in the following categories:

- Comparative measures across institutions;
- More detail to existing measures;
- Patient satisfaction data;
- Individual service and physician level performance data;
- Measurement need to be based on scientific evidence;
- More transparent value to patient care
- Overall population health measures
- Consistency of measures across payers, regulators and others that are trying to "help"
- Feedback from the tertiary care centers
- Local professional interactions
- Time and resources to address shortcomings

Section 3 – Accountability and measurement contains further information supporting this recommendation.

8. Align payment logically and transparently with good care

A common hope for payment reform is that the new models will be aligned with good care as opposed to the current fee for service model so dominant at present. Everyone expressed hope that new models would develop and mature principally to support good and efficient care and replace the current backward system where decisions about care are made frequently to comply with payment rules and regulation.

A common sentiment is new models need to be transparent to both patients and practitioners so they understand why the new models are both in their interest and in the interest of the greater good. Payment reform should be designed to support best care; practitioners and patients should not have to make contorted care decisions to comply with unaligned payment policies. **Section 4 – Payment reform** offers the reader more information on these issues.

9. Include direct care givers in policy discussions

Many physicians and other members of the care team are concerned that reform is moving forward fast, but they are not being asked to be part of the conversation. For some, reforms imply a loss of autonomy or a loss of income. There has been talk of caregivers leaving the state rather than tolerate intrusion into their autonomy or income. These issues need to be taken seriously and addressed aggressively. Specialty societies need to be integrally involved in all conversations. Individuals need to be informed and offered a chance to give their input as much as possible. Transparency within the reform process needs to be paramount. Resources specifically designated to maintain provider involvement and education about the reform process will be essential to the successful implementation of any reforms. Communication is the key. Lack of communication is poisonous.

"My biggest fear is the risk of a negative effect of the state's reform initiative on the physician workforce, the risk of Vermont getting tagged as a unattractive location to set up practice and as a work environment with an inordinate administrative burden for practitioners" - Tertiary center physician

"Health care reform is a double edged sword in terms of attracting new physicians and its effect on those currently here. Until there are more details and physicians have more sense of what they can expect the future work climate to be in the state, the prospect of reform can cut both ways" - Community hospital physician

Section 5 – Communication around policy that matters offers more insight on physician interests and concerns on being involved in policy discussions as well as some initial thoughts about how to actualize physician involvement in policy that matters to them and their patients.

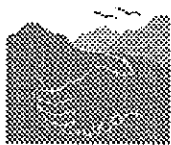
Concluding remarks

The executive summary is structured to highlight recommendations on issues of mutual interest to both the Board and the participating physicians. As mentioned in the Preamble each recommendation is referenced to one or more of the supporting six sections that comprise the body of the document. Not every section lines up with a specific recommendation, though some do. Sections are organized to follow more closely the questions asked in each interview. The

document is written to carefully link each recommendation with the supporting physician responses.

The six sections comprising the body of the document contain quoted material from the interviews. The reader is encouraged to read the sections to gain a fuller understanding of the opinions of the physician leaders who contributed to this effort. Though these physicians are principally responsible for the care of inpatients, many of their comments refer to issues relevant across all care settings. Comments in this white paper touch on delivery system issues that are highlighted in the companion document based on interviews principally with physicians who work in outpatient settings.

All the recommendations address extremely challenging issues and the participating physicians appreciate the steep climb the Board faces in redesigning the delivery system. The physicians involved in the thoughtful work supporting this document would like to offer their continued help to the Board in efforts to develop additional specific actionable recommendations to assist with delivery system redesign; and to partner with the Board to actualize the promise of health care reform in the state.



VMS Education & Research Foundation
helping physicians help patients & communities

The Green Mountain Care Board and The Vermont Medical Society Education and Research Foundation

A Qualitative Research Project

Recommendations for optimizing rural care in Vermont:

Better care, better health and lower costs

VMS Foundation White Paper

This report is the third in a series of reports from the VMS Foundation providing the views of practicing Vermont clinicians and other leaders on topics critical to the future of the state's health care system



Preamble

This white paper is the result of a partnership between the Green Mountain Care Board (the Board) and the Vermont Medical Society's Education and Research Foundation (the Foundation), a public-benefit corporation whose purpose is to advance the public good by supporting educational and research activities in the field of health.

In April of 2013 conversations began between members and staff of the Board and the Foundation exploring approaches to involve practicing clinicians in a collaborative process among themselves and with the Board to rationalize care delivery, improve quality, reduce variation and shift the principal focus of reform to health improvement. The discussants shared the opinion that the sum of these issues is the epicenter of health system transformation in both Vermont and in the country; everything else should aim to support this work, or any effort to control costs and improve quality will be fleeting.

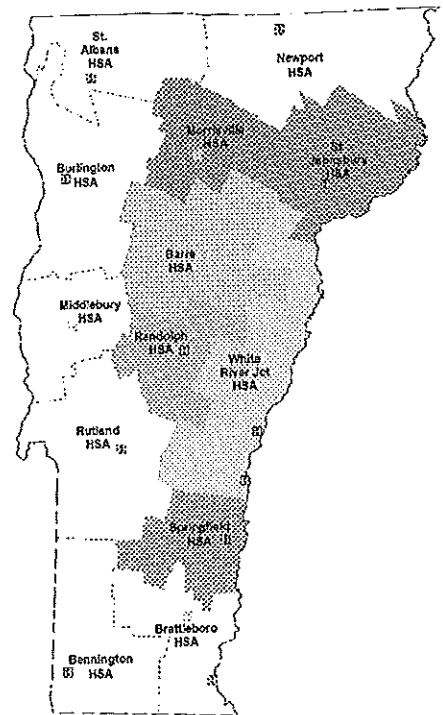
The Board having responsibility for a number of areas of health care regulation, strongly desired input from practicing clinicians on how they should change and reform regulatory processes to further the health care reform goals of the state:

1. **Reduce health care costs and cost growth;**
2. **Assure that all Vermonters have access to coverage for high-quality health care ;**
3. **Support improvements in the health of Vermont's population; and**
4. **Assure greater fairness and equity in how we pay for health care.**

The result of these conversations was a qualitative research effort managed by the Foundation and co-funded by both the Foundation and the Board. The focus of the research is to elicit clinician opinion on three topics directly relevant to current Board activities:

1. **Health resource allocation planning;**
2. **Measurement of health care processes and outcomes; and**
3. **Payment policy and payment reform**

The research effort has generated two white papers. Both white papers are based on structured interviews with practicing clinicians. One group of clinicians consists of the lead physicians for inpatient care at the majority of the region's hospitals. The second group of clinicians includes mostly primary care clinicians practicing in contiguous communities in the rural central eastern part of our state; three general surgery practitioners, an obstetrician gynecologist, two pediatricians and two psychiatrists also participated. All but one of the interviewees are allopathic or osteopathic physicians: one of the general surgery practitioners is a physician assistant.



Both sets of clinicians were asked 10 similar questions. The answers provided by the inpatient clinicians focused for the most part on inpatient care; the responses from the group of clinicians in the second group in general referred to broader community wide needs, but there was a great deal of similarity between the responses in both sets of interviews; and the reader of both white papers will find reference to many of the same issues across the two groups.

The document you are currently reading is the product of research focused on rural community based services, and represents the aggregation of structured interviews during the summer and fall of 2013 with 22 Vermont clinicians who practice in the rural settings in eastern central Vermont.

Each clinician was asked to respond to questions about what core community based clinical services should be available to Vermonters, and how health resources should be allocated across the region. Clinicians were asked how to best measure the quality of patient care and how payment reform could best support good care. The interview also included questions about practitioner hopes and fears about the future of care in the state, specifically how to keep Vermont an attractive place for clinicians to practice.

The Executive Summary is structured to highlight recommendations to the Board on issues of mutual interest. Recommendations were chosen in an attempt to balance the importance of the issue with the likelihood that the Board would be able to actualize the promise of their efforts.

Each recommendation is referenced to one or more of the seven sections that comprise the body of the document. Not every section lines up with a specific recommendation, though some do; rather the sections follow more closely the questions asked in each interview. The sections contain quoted material from the interviews. The reader is encouraged to read the supporting sections to gain a fuller understanding of the opinions of the clinical leaders who contributed to this effort.

The Green Mountain Care Board and the VMS Foundation are grateful for the contributions of the following professionals who contributed to this report:

Phil Brown MD, Berlin

- Chief Medical Officer Central Vermont Medical Center

Kevin Buchanan MD, Randolph

- Medical Director Clara Martin Center

Ovieto Ciccarelli MD, Randolph

- General surgery; and Director of surgical services Gifford Medical Center

David Coddair MD, Morrisville

- Medical Director Community Health Services of Lamoille Valley

Mark Crane MD, Berlin

- General surgery

Jeremiah Eckhaus MD, Montpelier

- Primary care

Sharon D. Fine MD, Danville

- Medical Director of Clinical Quality Northern Counties Health Care

Steve Genereaux MD, Wells River

- Medical Director Little Rivers Health Care

Dale Gephardt MD, Windsor/Thetford

- Retired primary care; and Board of Directors Little Rivers Health Care

Marjorie Gerwirz PA-C, Randolph

- General surgery

Mark Heitzman MD, Berlin/St J

- Cardiology Central Vermont Medical Center

Sarah Kemble MD, Chester

- Medical Director Springfield Medical Care Systems

Mike Kilcullen MD, Woodstock

- Pediatrics

Dina Levin MD, Randolph

- Obstetrics

John Matthew, Plainfield

- Medical Director and CEO The Health Center

Lou DiNicola MD, Randolph

- Pediatrics

Josh Plavin MD, Randolph

- Internal medicine and pediatrics; and Director of outpatient services Gifford Medical Center

Deb Richter MD, Montpelier

- Addiction medicine

Joel Silverstein MD, Morrisville

- Chief Medical Officer Copley Hospital

Peter Thomashow MD, Berlin

- Director of Inpatient Psychiatry Central Vermont Medical Center; and Adjunct Professor of Psychiatry at Dartmouth-Hitchcock Medical School.

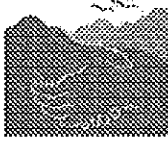
Sean Uiterwyk MD, White River Junction

- Primary care

Mark Yorra MD, Barre

- Primary care internal medicine

The VMS Foundation would like to recognize and thank **Randy Messier MT, MSA** for his contributions both to the nurturing of the Foundation's Rural Physicians Community of Practice and to the design and editing of this document.

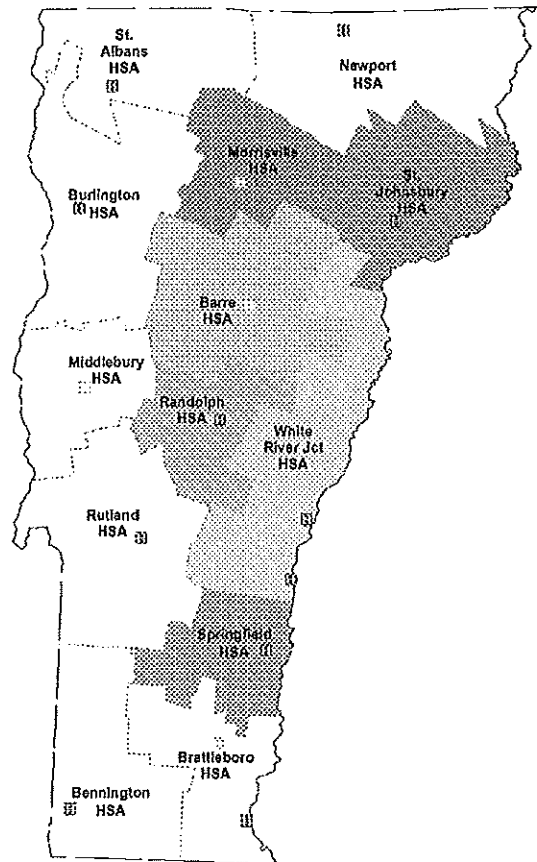


VMS Education & Research Foundation

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Executive Summary

This executive summary highlights recommendations for optimizing medical care in Vermont from physician leaders responsible for the majority of the care in several contiguous communities in the rural central eastern part of our state. The interviewed professionals are mostly primary care clinicians. Also included are three general surgery practitioners, an obstetrician gynecologist, two pediatricians and two psychiatrists. All but one of the interviewees are allopathic or osteopathic physicians: one of the general surgery practitioners is a physician assistant. The recommendations are made in the spirit of helping the Board succeed in their important work to design a Vermont health system for the 21st century. The summary is followed by six sections each of which voice physician opinion on topics of mutual importance to their patients and to the Board; both in the Board's role as a regulatory body as well as its role a catalyst for change. The physicians involved in the process all express interest in continuing to work with the Board in efforts to develop additional specificity to the recommendations and partner with the Board to actualize the promise of health care reform in the state.



1. Center the care system on patient needs

The Green Mountain Care Board is asked to partner with the VMS Foundation to develop a statewide health resource allocation plan that uses the medical needs of all Vermonters as the underlying construct rather than a community market based approach. The goal of the plan will be to ensure every Vermonter equitable access to safe, timely, effective and

efficient care that respects the needs of individuals¹. The Board is asked to be prescriptive towards the quantity and location of delivery system expenses both in its regulatory role and in its role as a catalyst for redesign of the delivery system; and to be proactive in balancing regional consolidation of resources with equitable and appropriate distribution of resources across the state. Finally, the Board is asked to design and evaluate the state's payment reform pilots in terms of their potential and success in promoting and supporting the goals of the state's health resource allocation plan.

"This is such an important issue, and incredibly complex. It's a conversation that needs to be happen, and as soon as possible. So much is changing and changing so fast. If we want to integrate care across the region in an efficient and effective manner, we need to have this conversation now – What's the right size of facilities? What are the right services? And what is the right place for them? How can we leverage what we already have to meet the patient centric needs of our shared communities in an efficient way that preserves core clinical services acceptably accessible in all communities?"- Community hospital chief medical officer

The majority of comments about the need for population based health resource allocation plan can be found in Section 2 - Core community based care and Section 3 – Coordinated regionalized care.

2. Design three levels of care

The Board is asked to partner with the VMS Foundation to ensure: 1) core community based services be readily available to all Vermonters regardless of where they live; 2) regionalized specialty services that are reasonably available; and 3) less frequently needed but critical tertiary and quaternary clinical capacities that are emergently available to all Vermonters. These tertiary and quaternary services should be accessible to Vermonters guided by a strategy agreed upon by the region's two academic medical centers in coordination with the large urban medical centers to the south.

1) Readily available community based services include:

- Primary care for adults
- Pediatric primary care
- Mental health and substance abuse
- Emergency medicine
- Emergency medical transfer service

2) Reasonably available regionalized services include:

- Proximity to inpatient medical and surgical care
- Home health services
- Skilled nursing capacity
- General surgery
- Obstetrics
- Urology
- Orthopedics
- Otolaryngology
- Cardiology
- Psychiatry

¹ Crossing the Quality Chasm – a New Health System for the 21st Century - the Institute of Medicine
<http://www.iom.edu/Reports/2001/Crossing-the-Quality-Chasm-A-New-Health-System-for-the-21st-Century.aspx>

- Dermatology
- Gastroenterology
- Neurology
- Dentistry

3) Emergently available tertiary and quaternary care services available at Fletcher Allen Health Care and Dartmouth Hitchcock Medical Center and the major urban medical centers to the south play a critical role in the current and future delivery system. A dependable high quality emergency medical transport system will be needed to transport Vermonters in need of critical and specialized care. The Board is asked to recognize and consider in their deliberations the role that the two regional academic medical centers play in maintaining a quality professional workforce for the state, specifically their potential role for developing designated tracks of training for individuals likely to locate in the rural communities of Vermont.

The majority of comments about the need for a statewide health resource allocation plan can be found in Section 2 - Core community based care and Section 3 – Coordinated regionalized care. Section 7 - Retention and recruitment of workforce includes mention of the need for regional academic medical centers to educate and train physicians interested in Vermont.

3. Coordinate clinical services

The Board is asked to partner with the VMS Foundation to plan for better coordination of patient care among providers and across care settings both within communities and across levels of care. A seamless reliable and efficient electronic clinical information system supporting portability of key clinical information is an essential requirement to support coordination.

Comments from contributors on the need for more coordination and communication between clinical services both within communities and across communities can be found in Section 2 - Core community based care and Section 3 – Coordinated regionalized care.

The majority of comments about both the promise and current failings of electronic clinical information systems are in Section 4 – Measurement and information; but because the issues surrounding health information technology are such a pressing issue to practitioners other insight can be gained in Section 1 – Hopes and fears and Section 5 - Payment reform.

4. Dovetail clinical and social services

The Board is asked to partner with the VMS Foundation to plan for better coordination of patient care between community based clinical services and community based social services. A seamless reliable and efficient electronic clinical information system supporting portability of key clinical information is an essential requirement to support coordination.

“The intent of the Blueprint is aligned with this need to provide more wrap around services in the community; but one gets the sense that Blueprint support is unstable and the goals and focus of the effort seem to always be in flux” - pediatrician

The reader is referred to the subsection on coordination of care across services and community support services in Section 2 - Core community based care for more detail.

Section 5 - Payment reform contains comments from contributors about the need to improve coordination between the clinical settings and community based social services; specific mention is made of initiating a program to educate and support community health workers, improve the state's current Blueprint for Health so it aligns better with community needs and the ensure wrap around social services for children in all Vermont communities.

5. Measure meaningful and actionable metrics

The Board is asked to invest considerable resources in evaluating all measurement initiatives over which they have statutory authority; and correcting and improving the usefulness of these efforts. The Board is asked to partner the VMS Foundation to closely evaluate the validity, reliability usefulness and practicality of those measurement initiatives that compete with direct patient care time particularly in primary care and mental health settings.

"I've practiced primary care in several other parts of the country; Vermont is the best place for primary care that I've been; that being said, if the administrative burden continues to increase, the good intentions underlying the documentation requirements and other administrative burdens will ruin the appeal of Vermont for primary care" – younger physician in a federally qualified health center

Additionally, the Board is encouraged to recognize the need for the provider community to adequately resource quality improvement and clinical innovation in the direct care settings in response to the information reported to them as a consequence of measurement activities.

Comments concerning measurement and information as well as the need for adequate support of quality improvement at the direct care setting can be found in Section 4 – Measurement and information. The reader is also referred to in the subsection on administrative burden in Section 1 – Hopes and fears.

6. Anticipate the workforce

The Board is asked to include the healthcare workforce as a key resource in all their health resource planning. The workforce challenges in the rural communities of the state are considerable and near term. The Board is asked to encourage both its private and public sector partners to prioritize the current and future needs of the workforce; particularly ensuring an adequate primary care and mental health/substance abuse workforce that is readily available to all Vermonters; regionalized specialty medical and surgical workforce that is reasonably available; and a tertiary and quaternary workforce that is emergently available to all the state's residents.

"Our current clinical capabilities are such that we never lose a life because we are missing capacity when a life threatening situation presents itself; but we are all really stressed " – federally qualified health center medical director

More detailed information on the contributors' views on clinical workforce issues can be found in Section 7 - Retention and recruitment of workforce, Section 2 - Core community based care and Section 3 – Coordinated regionalized care. Additional comments on workforce concerns can be found in Section 1 – Hopes and fears as concern about the future workforce was a major issue mentioned.

7. Partner with those at the sharp edge of care

All the interviewed practitioners applauded the Board's support for this research effort directed towards getting practitioner input on policy issues. All the clinicians who

participated feel strongly that their input into reform policy is essential for success, yet they sympathized with the challenge the Board is faced with regarding getting that input. The participating physicians ask the Board to consider this research effort not to be just a single interaction, but rather the beginning of a partnership with a group of Vermonters whose work is to listen to and help other Vermonters with their health care concerns and needs; and who share the Board's interest and passion to make the state a better place for those in need.

"My biggest hope is that reform will work, but my biggest fear is that it will not. There needs to be physician buy in. There needs to be a critical mass of engaged supportive physicians"—employed primary care physician

Section 6 – Policy input from clinicians contains additional physician thoughts about ways to include partitioning physicians in meaningful policy discussions.

Concluding remarks

The executive summary is structured to highlight recommendations on issues of mutual interest to both the Board and the participating physicians. As mentioned in the Preamble each recommendation is referenced to one or more of the supporting seven sections that comprise the body of the document. Not every section lines up with a specific recommendation, though some do. The seven sections are organized to follow more closely the questions asked in each interview. The document is written to link each recommendation with the supporting physician responses.

The seven sections comprising the body of the document contain quoted material from the interviews. The reader is encouraged to read the sections to gain a fuller understanding of the opinions of the physician leaders who contributed to this effort. Though these physicians are principally responsible for health care within the contiguous service areas of eastern central Vermont, many of their comments refer to issues relevant to care settings across the entire region. Many comments in this white paper touch on delivery system issues that are highlighted in the companion document based on interviews with 17 physicians who lead the hospitalist medicine services in the majority of the region's hospitals; the companion document focuses on optimizing inpatient care.

All the recommendations address challenging issues and the participating physicians appreciate the difficulty of the charge the Board faces to redesign the delivery system. The physicians involved in the effort supporting this document would like to offer their help to the Board in efforts to develop additional specific actionable recommendations to assist with delivery system redesign. The Vermont Medical Society's Education and Research Foundation and all the physicians that participated in this project thank the Green Mountain Care Board for their support of this effort.

Vermont Partners for Health Care Reform

Purpose

We are a group made up of health care providers, employers, and a health plan provider interested in providing essential information based on factual data and research-based analyses to shape the smart and effective reform of Vermont's health care system.

Each of our organizations shares a commitment to the goals of universal access and coverage; to providing the highest-quality care; and to delivering this with the greatest cost efficiency in a way that is financially sustainable for the state and its citizens. We believe these health care reform goals can only be achieved through a collaborative, transparent, and meaningful public-private relationship that builds on our existing strengths and assets and achieves mutual accountability for their outcomes.

Group Members

Fletcher Allen Health Care
Vermont Chamber of Commerce
Vermont Assembly of Home Health and Hospice Agencies, Inc.
Blue Cross Blue Shield of Vermont
Vermont Association of Hospitals and Health System
Vermont Medical Society
Vermont Business Roundtable

Vision (2018)

Everyone with a stake in Vermont's health care system realizes that we each play a critical role and share the responsibility to make it work.

- Health care providers deliver high-quality care efficiently; contain costs; and lead the development of practices and information-sharing that improve the health of Vermonters.
- Employers support the health and wellness of their employees.
- Health plans efficiently manage their operating costs, and provide exceptional service to patients and providers; enabling people to receive the care they need when they need it in the most cost-effective settings.
- Vermonters increasingly make healthy lifestyle choices, and actively partner with their health care providers to manage their care.
- The government supports the partnership of health care providers, employers, and public and private health plans needed for a robust system, and ensures that there are well-supported mechanisms for sustainable financing and coverage for all.

Doctors, nurses and other health care providers want to work in Vermont, and employers view Vermont's health care system as an asset to their business. Citizens are secure and confident about their own health care, and proud of VT's rankings as one of the healthiest states, with one of the most vibrant economies in the country.



To: Vermont Partners for Health Care Reform

From: Avalere Health

Date: November 14, 2013

Re: Evaluation of Vermont Health Care Reform Financing Plan

EXECUTIVE SUMMARY

The State of Vermont commissioned a study to estimate the cost of the single-payer plan contemplated by Act 48 – named Green Mountain Care (GMC) – and then to lay out options for financing that cost. The analysis (hereinafter, the “Financing Plan”) concluded that the State would need to raise \$1.61 billion from Vermont taxpayers in 2017 to fund the plan. The amount to be raised is comparable to Vermont’s tax collections from all sources today. Some of the new tax burden would be offset by the elimination of direct costs for private health coverage, since the State expects to become the health insurer for most Vermonters.

The Financing Plan did not designate specific revenue sources for the single-payer plan. The Governor is due to issue a report in 2014, and the General Assembly will consider the Administration’s recommendations for revenue sources to fund the program in early 2015.

Avalere Health was retained by Vermont Partners for Health Care Reform, a group comprised of Vermont health care providers, a health plan provider and employers, to make an independent assessment of the Financing Plan’s cost estimate and its key assumptions. To inform the appraisal, Avalere conducted an extensive review of Vermont’s health reform documentation and interviewed key Vermont stakeholders. Avalere’s evaluation assessed the validity of the assumptions of the Financing Plan, identified outstanding questions not directly addressed in the Financing Plan, and outlined potential impacts the Financing Plan may have on providers, payers, employers, and consumers in Vermont.

To furnish generous coverage to Vermonters for the least cost, the Financing Plan’s cost of \$1.61 billion is based on key assumptions in order to seek savings by offsetting expected growth in coverage and consumption of health services. The authors of the Financing Plan made pivotal assumptions on such factors as:

- How many people will receive coverage
- How frequently people will utilize various health care services
- How much each of these services will cost
- How much savings can be found from administrative simplification

As acknowledged by the analysts who prepared the Financing Plan, each of these assumptions has a wide potential range of outcomes, and small changes in the assumptions can lead to large differences in total costs, especially when compounded across several years. Changes in key assumptions such as provider payment rates and administrative savings could fundamentally increase the cost of the single-payer plan that the General Assembly will be considering in 2015.

While Avalere did not produce a different model, we evaluated alternatives provided in the Financing Plan regarding alternatives for provider payment rates and administrative savings. Avalere believes that a more appropriate expected cost, assuming the same program scale expected by the Financing Plan, could be \$1.9 to \$2.2 billion, or about 20 to 35 percent higher than the current estimate.

Table 1: Potentially Higher Costs for GMC from Varying Key Assumptions

<i>\$ in millions</i>	Financing Plan (Mid-Range)	Alternative Assumptions	
	105% Medicare	115% Medicare	125% Medicare
Provider payment rates			
- Net change in payments	(\$155)	\$73	\$301
Implied provider payment reduction	-16%	-11%	-6%
Administrative cost savings			
- Payers	(\$126)	(\$50)	\$0
Amount to be financed	\$1,611	\$1,915	\$2,193

Source: Financing Plan and Avalere analysis

Assessment of Key Financing Plan Assumptions

- **GMC's plan to pay providers at 105 percent of Medicare may jeopardize access to health care services.** The Financing Plan specifically assumes that GMC will pay providers at 105 percent of Medicare rates beginning in 2017. Since GMC does not replace Medicare, the average payment for providers would be 103 percent of Medicare. We estimate that providers in Vermont today receive 122 percent of Medicare, on average, so it appears that

the Financing Plan is asking providers to absorb a cut in payment of 16 percent or nearly one dollar in six. This measure could create a disincentive for health care practitioners to work in Vermont if payments to providers in other states prove to be higher in comparison.

Moreover, Medicare payment may be an unreliable benchmark. Medicare rates do not accurately reflect different providers' costs. For example, the Medicare Payment Advisory Commission (MedPAC) estimates that the average acute-care hospital has a Medicare margin of -5.8 percent – that is, a loss. The Green Mountain Care Board (GMCB) acknowledges that hospital costs are often above Medicare payments, noting that estimates range from 79 to 100 percent of costs; the GMCB also notes that some categories of expenditures are not covered by Medicare. For physicians, Medicare's payment formula is subject to annual machinations by Congress; if Congress should fail to reconcile payment in any year, physicians whose payments are tied to Medicare policy may see a dramatic drop.

- **The Financing Plan assumes that utilization will continue to increase and provider payment will need to be reduced to help offset higher health care costs.** The Financing Plan assumes that the GMC plan offered to Vermont residents will have an actuarial value level of 87 percent and the Financing Plan forecasts spending from 2011 to 2017 using data from sources such as the Medicare Trustees Report, National Health Expenditure Projections, and state Medicaid data. Much of this data is developed by actuaries who are not looking just at Vermont, and do not include projections of the potential effects of state-based reforms. Health care utilization in Vermont slowed down significantly during the 2010-2011 period. On a per capita basis, the annual growth rate for total health care costs in Vermont dropped significantly from 7-8 percent per year in 2008 and 2009 to 4.2 percent in 2010 and 0.9 percent in 2011. The GMCB estimates per capita spending will return to much higher levels in 2012-2014, and the Financing Plan uses similar assumptions to forecast per capita spending rates through 2017.
- **The plan assumes large administrative savings that may not be feasible to achieve.** Act 48 presumes that private insurers in Vermont will be replaced by a state agency that would run Green Mountain Care. The Financing Plan assumes that this agency's administrative costs will amount to roughly 7 percent of total health spending rather than the 12 percent that is the national average for private insurers today.

More recent estimates from the GMCB suggest that the average administrative ratio for private plans in Vermont for 2013 is actually 6.7 percent. Since private insurance companies in Vermont – in particular, the state's dominant private insurer, Blue Cross Blue Shield of Vermont – have already reduced the administrative margin to levels below the mid-point target in the Financing Plan, it may not be feasible for the state-run program to achieve additional savings.

In addition, Vermont's health care providers may not realize the projected administrative cost savings due to their continued interactions with Medicare beneficiaries, with people covered by employer plans exempted from state regulation under ERISA, and with patients from out of state, all of whom will be outside of Vermont's single-payer program.

- **The Financing Plan assumes most employers will stop offering coverage to employees.** The Financing Plan assumes that nearly 70 percent of Vermont residents will have primary coverage through Green Mountain Care by 2017. This includes all Medicaid beneficiaries plus most people who purchase insurance individually. It also includes 84 percent of people who currently have employer-sponsored coverage. Whereas one of the Affordable Care Act's goals is to increase employer-sponsored coverage via a penalty for non-coverage, the incentives for employers in GMC are unknown since Act 48 does not specify any rules and the source of financing is as yet undetermined. As such, it is difficult to say if the estimates for the number of people to be covered by GMC are accurate, which in turn makes it difficult to accept some of the assumptions regarding savings.

Outstanding Questions

- The Financing Plan is one of several pieces of a plan that has been developed to help Vermont build a framework for establishing Green Mountain Care. It must be read in conjunction with other documents including the Blueprint for Health materials, the State Innovations Model grant proposal and operating plan, the Healthcare Workforce Strategic Plan, GMC Board meeting minutes and other relevant health care reform foundation. There remains considerable uncertainty regarding the effects that reforms included in these other documents will have on spending growth. If these reforms have the effect of reducing utilization patterns, total spending in Vermont may be lower than the levels estimated by the Financing Plan.
- The Financing Plan aims to replace the current fee-for-service payment system with a system of global payments by 2017. The Financing Plan report does not describe details of the new provider payment system. Instead, the plan assumes a reimbursement rate of 105 percent of Medicare. Other documents issued by or on behalf of State agencies do touch on new payment models but they lack specificity sufficient to evaluate their potential impact.
- Payment rates for out-of-state care will be contingent on making arrangements with out-of-state providers, which are yet to be determined. Additionally, out-of-state care is likely to affect the administrative savings projections, as providers will likely still have to deal with out-of-state payers and continue administrative functions for out-of-state patients.

Evaluation of Stakeholder Impact

- **Private insurers.** If GMC becomes the primary insurer for most Vermonters who are not already covered by public programs – Medicare and Medicaid, mainly – there will be no role, or at minimum a radical change to the business model, for Vermont's private insurers. Of note, the nonprofit Blue Cross Blue Shield of Vermont would have little reason to exist.
- **Health care practitioners.** As proposed, the Financing Plan could create a significant disincentive for health care practitioners to work in Vermont due to reduced compensation and increased payment uncertainty compared to what they might earn in other states.
- **Hospitals.** The Financing Plan assumes there will be an instantaneous cut in provider payment rates at the start of 2017 and it does not consider the differences among hospitals and other health care facilities relative to the benchmark Medicare payment rate. Some facilities could suffer gravely if actual policy conforms to the assumption.
- **Employers.** GMC will have differential impacts on employers. Some may see their workers gain coverage at a cost that is lower than what they pay today. Depending on the form of assessments used to finance GMC, other employers could continue to pay to insure their workers while also contributing to pay for the health costs of other businesses' employees.
- **Consumers.** GMC will likely increase the demand for health care services in Vermont and residents may also be subject to broad-based taxes to help fund GMC. Some consumers will see a net improvement in their direct and indirect costs of health care while others will pay more.

Conclusion

The authors of the Financing Plan took care to note that they made many assumptions and that there is variability around each of their point estimates. Avalere agrees that these factors make the projected funding need of \$1.61 billion uncertain. Applying what we consider to be more reasonable assumptions for provider payment rates and administrative savings, we conclude that funding needs could be \$1.9 to \$2.2 billion.

Only when the Governor issues his proposal for ways to raise the necessary funding will it be possible to assess the effects on the costs – taxes and others – and benefits to different groups of Vermont residents and businesses in general. We can say that the effects on the health care sector appear to be adverse: for providers it appears that average payments will be significantly lower and for health insurers there appears to be no basis to continue to operate in the state.